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OUTPERFORMERS: HIGH-GROWTH EMERGING ECONOMIES AND THE COMPANIES THAT PROPEL THEM

SEPTEMBER 2018

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Advice and input to MGI research are provided by the MGI Council, members of which are also involved in MGI's research. MGI Council members are drawn from around the world and from various sectors and include Andrés Cadena, Sandrine Devillard, Tarek Elmasry, Katy George, Rajat Gupta, Eric Hazan, Eric Labaye, Acha Leke, Scott Nyquist, Gary Pinkus, Sven Smit, Oliver Tonby, and Eckart Windhagen. In addition, leading economists, including Nobel laureates, act as advisers to MGI research.

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OUTPERFORMERS: HIGH-GROWTH EMERGING ECONOMIES AND THE COMPANIES THAT PROPEL THEM

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PREFACE

Emerging economies are the engine of growth for the global economy, yet not all are alike. Some have achieved rapid growth over prolonged periods—fast enough and long enough to close a part or most of the gap with advanced economies—while others have not.

To understand these divergences, and to identify lessons for all aspirants in the evolving global landscape, MGI has undertaken wide-ranging research into the enablers of sustained high economic growth among emerging economies. We focus on two intertwined aspects that strike us as essential but underrepresented in the literature on development economics: government actions that encourage higher productivity, income, and demand, and the role played by large, ambitious, and globally competitive companies. We aim to provide policy makers, corporate leaders, and global investors with a new understanding of the growth opportunities ahead and the characteristics of successful emerging market champions.

This study is an analysis of the long-term economic growth patterns of emerging economies. It does not explore broader characteristics of economies, such as political processes, types of government, or the functioning of civil society.

This research was led by Jonathan Woetzel, a McKinsey senior partner and a director of MGI based in Shanghai; Anu Madgavkar, an MGI partner in Mumbai; Jeongmin Seong, an MGI senior fellow in Shanghai; and James Manyika, the chairman of MGI, in San Francisco. Several McKinsey senior partners across the globe provided insight and guidance. They are Andrés Cadena in Bogotá; Rajat Gupta in Mumbai; Acha Leke in Johannesburg; Kevin Sneader, McKinsey's managing partner and former head of the firm's offices in the Asia–Pacific region; and Oliver Tonby in Singapore. We are also grateful to Jacques Bughin, a McKinsey senior partner and MGI director in Brussels; Tarek Elmasry, a McKinsey senior partner in Dubai; Sree Ramaswamy, an MGI partner in Washington; and Mekala Krishnan, an MGI senior fellow in Boston. Shishir Gupta, Paul Jacobson, Hayoung Kim, and Aditi Ramdorai led the research team in different periods. The team comprised Abdulla Abdulaal, Sruthi Chekuri, Nazrul Johari, Yuvika Motwani, Alberto Ramos, Rafael Rivera, Thea Tan, and Eleni Watts.

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a senior fellow at the Jackson Institute for Global Affairs at Yale University; Dani Rodrik, Ford Foundation Professor of International Political Economy at Harvard's John F. Kennedy School of Government; and Andrew Sheng, a distinguished fellow of the Asia Global Institute at the University of Hong Kong and chief adviser to the China Banking Regulatory Commission. We also thank the many business leaders, experts, investors, and entrepreneurs who shared their insights confidentially in our survey.

This report was edited and produced by senior editor Mark A. Stein, editorial director Peter Gumbel, editorial production manager Julie Philpot, senior graphic designers Marisa Carder and Patrick White, and graphic design specialist Margo Shimasaki. MGI's external communications team—Nienke Beuwer in Amsterdam, Cathy Gui in Shanghai, and Rebeca Robboy in San Francisco—managed dissemination and publicity, while digital editor Lauren Meling provided support for online publication and social media. We thank Deadra Henderson, MGI's manager of personnel and administration, and MGI knowledge operations specialists Timothy Beacom, Karen P. Jones, and Nura Funda for their support. Photographs are by George Steinmetz.

We are grateful for all the input we have received, but the final report is ours, and all errors are our own. This report contributes to MGI's mission to help business and policy leaders understand the forces transforming the global economy, identify strategic locations, and prepare for the next wave of growth. As with all MGI research, this work is independent and has not been commissioned or sponsored in any way by any business, government, or other institution. We welcome your comments on the research at **MGI@mckinsey.com**.

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September 2018

Young entrepreneur at a technology innovation center in Nairobi, Kenya.
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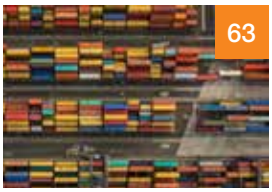

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IN BRIEF

OUTPERFORMERS: HIGH-GROWTH EMERGING ECONOMIES AND THE COMPANIES THAT PROPEL THEM

Emerging economies are the engine of global growth, but the performance of individual economies varies considerably. In this research, we identify outperforming countries that have experienced strong and sustained growth, and focus on the economic policy choices and the often-overlooked contribution of large firms that have driven that growth. Key findings:

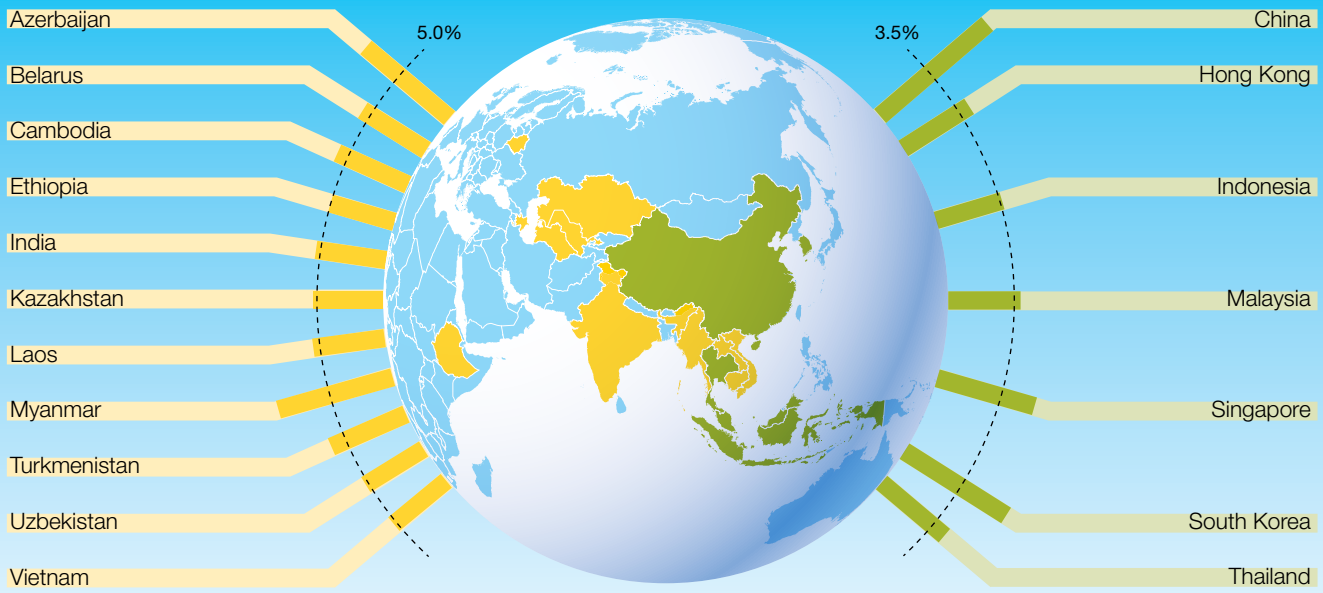
- Eighteen of the 71 emerging economies we studied outperformed global benchmarks and their peers by achieving more than 3.5 percent per capita GDP growth over 50 years or 5 percent growth over 20 years. They include long-term success stories such as China and Malaysia, recent high-growth economies such as India and Vietnam, and less heralded outperformers, including Ethiopia and Uzbekistan. These 18 countries have lifted about one billion people out of extreme poverty since 1990—730 million in China alone—and generated 44 percent of emerging market consumption growth between 1995 and 2016.
- Outperformers develop a pro-growth agenda across public and private sectors aimed at boosting productivity, income, and demand. Steps to boost capital accumulation, including (sometimes) forced savings, are a common feature, as are deep connections to the global economy. Governments in these countries have tended to invest in building competence, are agile and open to regulatory experimentation, and are willing to adapt global macroeconomic practices to the local contexts. Critically, their competition policies create an impetus for productivity growth, increased investment, and the rise of competitive firms.
- Large, competitive firms propel outperforming economies. On average, these economies have twice as many companies with revenue over $500 million as other emerging economies. Their revenue relative to GDP almost tripled from 22 percent between 1995 and 1999 to 64 percent between 2011 and 2016, and their contribution of value added to GDP rose from 11 percent to 27 percent in the same period, double the level among developing-economy peers. These firms bring productivity benefits by investing in assets, R&D, and job training, which create spillover effects for smaller firms. Large firms, in turn, benefit from the intermediary goods and services smaller companies provide through the supply-chain ecosystem.
- Competition and contested leadership in the private sector are key features of these dynamic economies, with the best-performing companies subject to fierce competition at home. Less than half (45 percent) of firms that reach the top quintile of economic profit generation manage to stay there for a decade, compared with 62 percent in high-income economies, a consistent pattern across eight sectors. The rewards for those that succeed are higher: the top 10 percent of firms in outperforming economies capture more than four times the share of economic profit as their peers in advanced economies.
- This competitive home environment has spawned innovative global players whose total return to shareholders is eight to ten percentage points higher than high-income peers. They derive 56 percent of their revenue from new products and services, eight percentage points more than advanced economy peers, and are 27 percentage points more likely to prioritize growth abroad.
- Extending the success of outperformers to all other emerging economies could add $11 trillion to the global economy by 2030, an approximately 10 percent boost equivalent to the size of China. Automation and shifting trade patterns, along with other global trends, present new opportunities. There are broad prospects for growth in services, a traditional engine of employment, and in manufacturing, which can also stimulate demand and productivity in other sectors. Despite evidence of premature deindustrialization, we estimate that some emerging economies could boost the share of manufacturing employment as much as four percentage points by 2030 while also increasing the sector's share of GDP by up to three percentage points.
- Success or failure has been regionally driven, as emerging economies are historically more alike regionally than in any other way. That said, every region has fast-growing countries and the potential to achieve better outcomes. Bangladesh, Bolivia, the Philippines, Rwanda, and Sri Lanka, among others, have exceeded 3.5 percent annual per capita GDP growth since 2011. Laying strong policy foundations and fostering the growth of large firms could elevate these and other countries to the ranks of future outperformers.

Lessons from outperformers

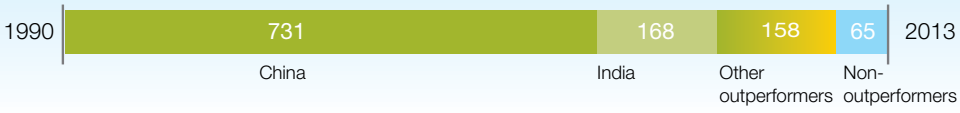
Of 71 emerging economies studied, 18 achieved rapid, sustained growth

11 **Recent outperformers achieved**
GDP per capita growth of more than 5.0% annually for 20 years

Long-term outperformers achieved **7**
GDP per capita growth of more than 3.5% annually for 50 years



Outperformers lifted 1 billion people out of extreme poverty in two decades, 95% of total
People lifted out of extreme poverty, million



Two factors driving outperformance

A pro-growth policy agenda ...

Measures that supported capital accumulation and ensured stability helped create a pro-growth agenda

Productivity

- Promoting competition
- Increasing total factor productivity

Income

- 3–5pp faster annual wage growth
- ~60% of growth in consuming classes in emerging economies

Demand

- ~30% of global goods trade in 2016
- 3pp faster annual consumption growth
- Rank highly for global connectivity

... and highly competitive large companies

Outperformers' large firms are:

More numerous

2x **as many large firms** for size of the economy compared with other emerging economies

More contested

55% **of firms in top quintile** are displaced from their ranks within a decade vs only 38% of peers in advanced economies

Outperforming rival firms in high-income countries

More successful
40%
higher total return to shareholders

Bolder innovators
8pp
more sales from new products

Quicker decision makers
32%
faster investment decisions

Aggressive growers
27pp
more cite entering new markets abroad as priority

Three global trends that can help all emerging economies achieve stronger growth

Rapidly evolving technology

Automation could increase labor productivity in emerging economies by 0.8–1.2%

Rising consumption from urbanization

Consuming class in 440 cities could account for almost 50% of global GDP growth by 2025

Growing south–south trade

11x increase in trade between China and other emerging markets between 1995 and 2016

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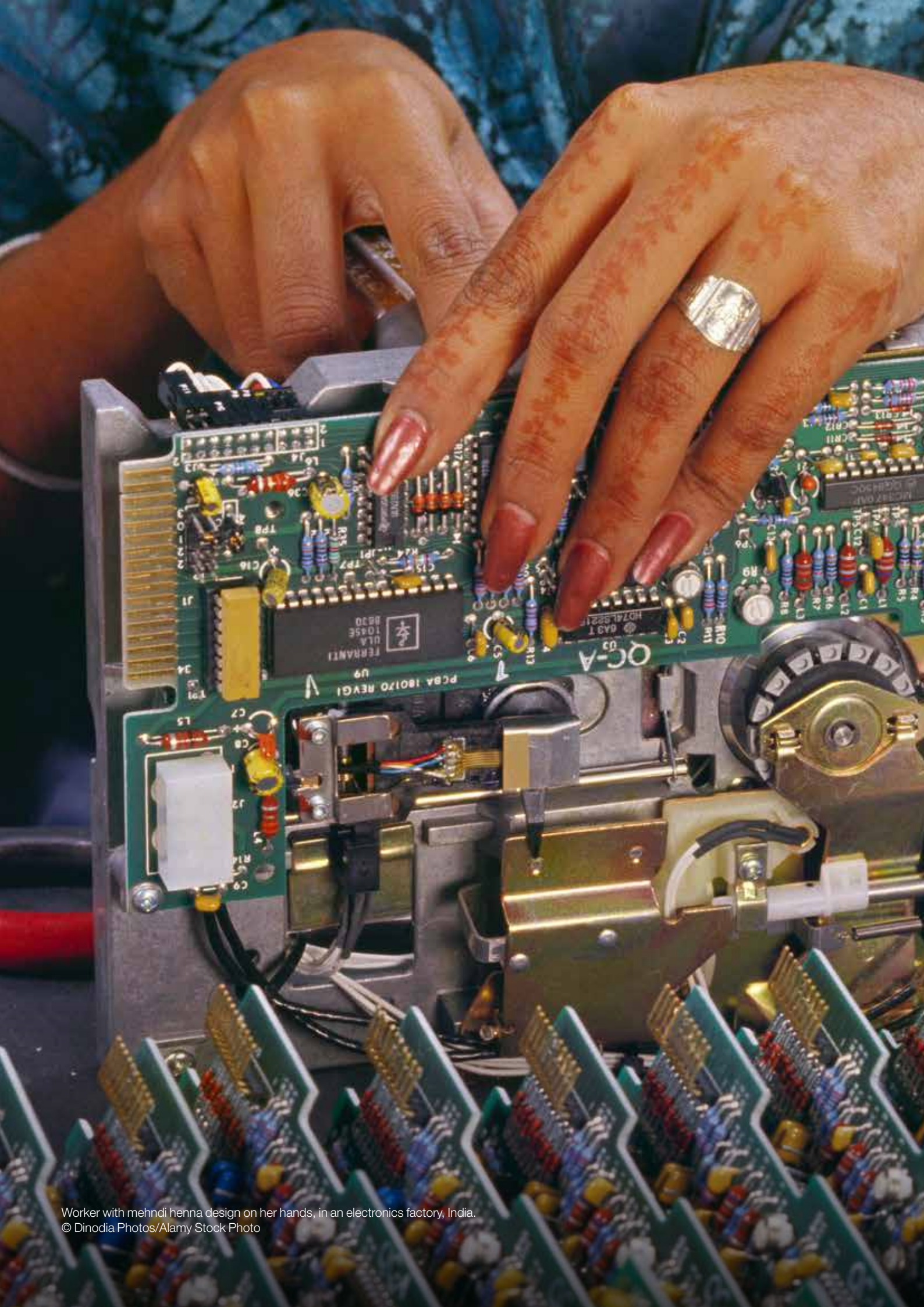


Worker with mehndi henna design on her hands, in an electronics factory, India.
© Dinodia Photos/Alamy Stock Photo

SUMMARY OF FINDINGS

Emerging economies have been a powerful engine of growth for the global economy during the past half century. Led by China and India, these economies accounted for almost two-thirds of the world's GDP growth and more than half of new consumption over the past 15 years. Yet the catchall term "emerging economies" is misleading, for within this large group of countries, economic performances vary substantially. While some countries have truly "emerged," achieving powerful and sustained long-term growth that has enabled these leaders to narrow the gap with high-income advanced economies, others have remained submerged, growing less strongly and steadily than the leaders, or falling behind.

In this report, we look at the long-term economic track record of 71 developing economies to identify the outperformers—and determine how and why they outperformed. We focus on the agenda of productivity, income, and demand that has driven exceptional economic growth in these outperformers, and examine the underappreciated but nonetheless standout role that large companies have played in driving that growth. These companies have fought their way to the top in a propitious but often competitive macroeconomic environment and are emerging as formidable global competitors. If more economies can apply lessons from outperformers and take advantage of changing global trends, including rapid technological change, opportunities for growth in emerging economies will be abundant across all regions—and top-performing firms that have thrived through the trials of contested leadership will be at the forefront of that growth.

Recent economic turbulence in several emerging economies has tested some investors' confidence. In this report, we take a long view of developing economies, looking back at their real performance over decades and looking forward to where they could be in 2030.

QUANTIFYING SUCCESS AMONG DEVELOPING ECONOMIES: 18 OF 71 COUNTRIES OUTPERFORMED THEIR PEERS AND GLOBAL BENCHMARKS

We analyzed the per capita GDP growth of 71 economies over 50 years, starting in 1965 (see Box E1, "Our categorization of developing economies"). Of these, we identified 18 as outperformers, about one in four.

Seven economies achieved or exceeded real annual per capita GDP growth of 3.5 percent for the entire 50-year period. This threshold is the average growth rate required by low- and lower middle-income economies to achieve upper middle-income status over a 50-year period, as defined by the World Bank.[1] That growth rate is 1.6 percentage points above the per capita GDP growth of the United States in the same period. The seven are China, Hong Kong, Indonesia, Malaysia, Singapore, South Korea, and Thailand.

[1] The World Bank assigns the world's economies into four income groups: high, upper middle, lower middle, and low. We set the threshold growth rate for long term outperformers at 3.5 percent, which is the annual average growth rate required over a 50-year period for low-income and lower middle-income economies to achieve upper middle-income status. For low-income economies alone, the threshold growth rate is 4.3 percent, and for lower middle-income economies it is 2.8 percent. *The Data Blog*, "New country classifications by income level: 2016-2017," blog entry by World Bank Data Team, July 1, 2016, blogs.worldbank.org.

Box E1. Our categorization of developing economies

For our analysis, we started with a list of 218 countries tracked by the World Bank, then excluded 99 countries with fewer than five million people in 2016, a further 28 countries because of a lack of data, and 20 high-income countries.[1] Of the remaining sample of 71, we identified the 18 outperformers: the long-term outperformers over 50 years, which represented 24 percent of the world's population and 18 percent of global GDP as of 2016, and the recent outperformers, which represented 22 percent of global population but only 4 percent of worldwide GDP in 2016.

In most of the developing economies we studied, per capita GDP increased relative to the United States but by a lower margin than for the outperformers, or less consistently. While these middling economies shared some broad traits, they represent a range of performances. Some, such as Bangladesh and Ghana, have seen recent growth spurts; others, such as Bulgaria, Pakistan, and Tanzania, have grown more consistently, while the economies of a third grouping, including Argentina and Kenya, have been highly volatile.

Some emerging economies have underperformed, with their per capita GDP declining relative to the United States from 1965 to 2016. These countries include Lebanon, Russia, South Africa, Ukraine, Venezuela, Zambia, and Zimbabwe.

For several economic indicators, such as capital accumulation and total factor productivity, reliable data are not available for the 50 years we review. Where this occurs, we use the longest available time series of reliable data and state the time frame in the text and exhibits. We took the simple average of indicators across countries to avoid overriding the growth experience of smaller economies.

Our analysis is based on data up to 2016, and for the sake of consistent analysis it does not take into account more recent developments.

[1] We include Greece, Portugal, and South Korea in our analysis of emerging economies because the World Bank only classified them as high-income countries in the 1990s. We also include Hong Kong and Singapore, which were classified as high-income countries in 1987. See technical appendix for details.

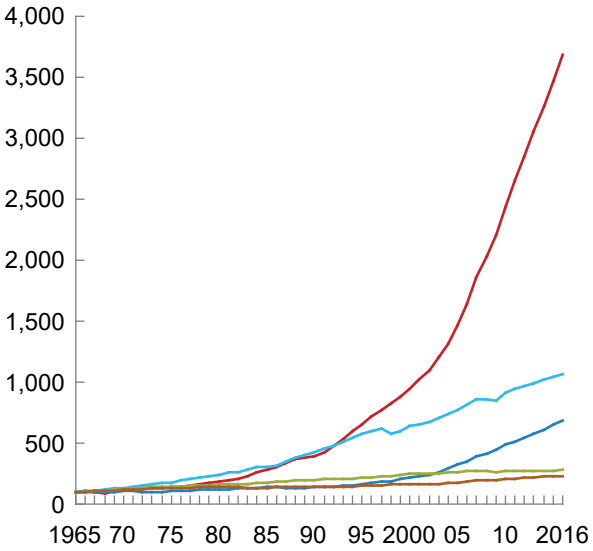
While the economic transformation stories of these Asian countries, especially China, have been widely studied (including by us), they remain remarkable in their scale and speed. Our analysis found a second group of 11 more recent, less heralded and more geographically diverse outperformers, across regions and income levels. These countries achieved real average annual per capita GDP growth over the 20 years between 1996 and 2016 of at least 5 percent. This was enough to lift themselves by one income bracket as defined by the World Bank—and 3.5 percentage points above the per capita GDP growth of the United States.[2] The 11 are Azerbaijan, Belarus, Cambodia, Ethiopia, India, Kazakhstan, Laos, Myanmar, Turkmenistan, Uzbekistan, and Vietnam (Exhibit E1).

[2] For recent outperformers, we set the threshold growth rate at 5.0 percent. Under the World Bank's income classification, low- and lower middle-income countries must attain average annual growth of 5.4 percent to move up one income level over a 20-year period. Growth of 3.7 percent is needed for the move from low to lower-middle income, while 7.1 percent growth is needed to rise from lower-middle to upper-middle income. Ibid.

Exhibit E1

GDP per capita growth among outperforming economies has far exceeded that of other emerging economies.

GDP per capita[1]
Index: 100 = 1965



Archetype	Compound annual growth rate, 1965–2016 %	GDP, 2016[2] % share	Population, 2016[2] % share
China	7.3	13	19
Long-term outperformers (excluding China)	4.7	5	6
Recent outperformers	3.9	4	22
High income	2.0	59	13
Non-outperformers	1.7	16	31

1 Calculated using GDP per capita (constant 2010 $) and based on simple averages.
2 Excluded economies account for 3% of global GDP and 9% of population.
NOTE: Figures may not sum to 100% because of rounding.

SOURCE: World Bank; McKinsey Global Institute analysis

These 18 countries not only showed exceptional average economic performance but also demonstrated consistency by exceeding the benchmark growth rate in at least three-fourths of the 50 and 20 years, respectively. Some other countries such as Brazil, Ghana, and Poland that have also experienced strong periods of growth did not make the cut, as they have gone through sharp downturns following the booms. Exhibit E2 shows our classification of the 71 emerging economies and, for outperformers and select others, highlights their progress across a range of economic performance dimensions that we consider in our analysis.[3] Overall we find little evidence to support notions of a "middle-income trap"—that is, that countries which relied for growth on low wages and technology adoption from higher-income nations could lose their competitive advantage as they become more prosperous and move up to middle-income status.[4]

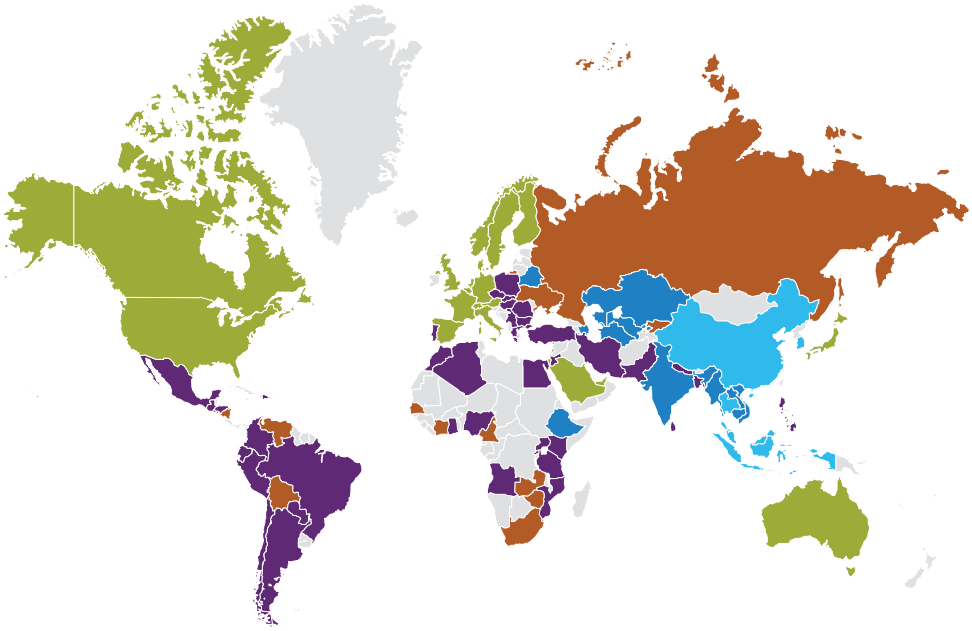
[3] Prior MGI research has shown that advancing the participation and role of women in the economy can give a significant boost to GDP, and this is also true of emerging economies. For this research, we did not explicitly include gender equality-related metrics in our economic performance indicators, as female participation in the labor force is heavily influenced by non-economic factors such as cultural barriers and household preferences about how to manage unpaid care work. In many emerging economies, therefore, we see a nuanced relationship between economic factors, like household income and urbanization, and progress on gender equality. See *The power of parity: Advancing women's equality in Asia Pacific*, McKinsey Global Institute, June 2018; *The power of parity: How advancing women's equality can add $12 trillion to global growth*, McKinsey Global Institute, September 2015.

[4] See, for example, Shekhar Aiyar et al., *Growth slowdowns and the middle-income trap*, IMF working paper WP/13/71, March 2013, imf.org; Pierre-Richard Agénor and Otaviano Canuto, *Middle-income growth traps*, World Bank policy research working paper number 6210, September 2012; and David Bulman, Maya Eden, and Ha Nguyen, "Transitioning from low-income growth to high-income growth: Is there a middle-income trap?" *Journal of the Asia Pacific Economy*, January 2017, Volume 22, Number 1, pp. 5–28.

Exhibit E2

Eighteen emerging economies sustained long-term GDP per capita growth, outperforming their peers.

N = 91 countries[1]



High income[2]

- Australia
- Austria
- Belgium
- Canada
- Denmark
- Finland
- France
- Germany
- Israel
- Italy
- Japan
- Netherlands
- Norway
- Saudi Arabia
- Spain
- Sweden
- Switzerland
- United Arab Emirates
- United Kingdom
- United States

Long-term outperformers[3]
Outpaced US growth consistently from 1965–2016

- China
- Hong Kong
- Indonesia
- Malaysia
- Singapore
- South Korea
- Thailand

Recent outperformers[4]
Outpaced US growth consistently from 1996–2016

- Azerbaijan
- Belarus
- Cambodia
- Ethiopia
- India
- Kazakhstan
- Laos
- Myanmar
- Turkmenistan
- Uzbekistan
- Vietnam

Middlers[5]
No relative change: No or inconsistent improvement relative to US from 1965–2016

Very recent accelerators

- Bangladesh
- Dominican Republic
- Ghana
- Mozambique
- Peru
- Philippines
- Poland
- Rwanda
- Sri Lanka

Consistent growers

- Bulgaria
- Chile
- Colombia
- Czech Republic
- Ecuador
- Egypt
- Hungary
- Morocco
- Nepal
- Pakistan
- Portugal
- Romania
- Serbia
- Slovak Republic
- Tanzania
- Turkey
- Uganda

Volatile growers

- Algeria
- Angola
- Argentina
- Brazil
- Greece
- Guatemala
- Honduras
- Iran
- Jordan
- Kenya
- Mexico
- Nigeria
- Paraguay

Underperformers[6]
Fallen behind: Slower relative growth than US from 1965–2016

- Bolivia
- Cameroon
- Côte d'Ivoire
- El Salvador
- Kyrgyz Republic
- Lebanon
- Nicaragua
- Russia
- Senegal
- South Africa
- Ukraine
- Venezuela
- Zambia
- Zimbabwe

1 We excluded economies with populations of less than 5 million in 2016 and those with limited data availability.
2 For the purposes of this report, we have defined high income economies as those that had gross national income per capita of $6,000 or more in 1987, when the World Bank first started classifying countries by income bands. The two exceptions are Hong Kong and Singapore, which are classified as outperformers in our report due to the high rate of growth during the period analyzed.
3 The long-term outperformer threshold of 3.5% compound annual growth rate of GDP per capita is the average growth rate required by low (4.3%) and lower-middle-income (2.8%) economies to achieve upper middle-income status over a 50-year period.
4 The recent outperformer threshold of 5% compound annual growth rate is derived from the average growth rate of 5.4% required by low (3.7%) and lower middle (7.1%) income to move up one income level over a 20-year period (from low to lower middle or lower middle to upper middle).
5 The middler threshold was between 0.95% and 3.5% compound annual growth rate over the period 1965–2016, or where economies did not meet the criteria for other cohorts. Very recent accelerators' GDP per capita growth outpaced long-term outperformers' (>3.6% compound annual growth rate) from 2006–16. Consistent growers' GDP per capita grew consistently (albeit slowly) from 1965–2016 with a low coefficient of variation. Volatile growers' GDP per capita regressed and/or exhibited a high coefficient of variation over at least one 10-year period from 1965–2016. Coefficient of variation defined as standard deviation of year-on-year growth divided by simple average year-on-year growth 1965–2016.
6 The underperformer threshold of <0.95% compound annual growth rate of GDP per capita over the period 1965–2016 is equivalent to <50% of the rate achieved by the United States over the same period.
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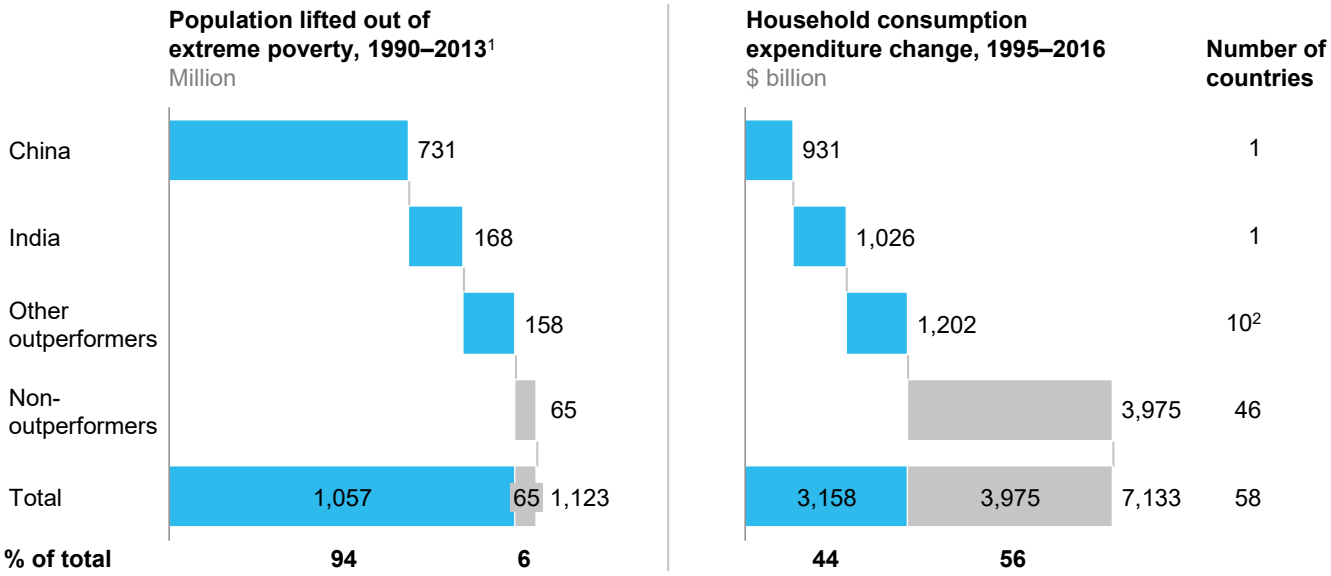
SOURCE: World Bank; McKinsey Global Institute analysis

Collectively, the outperformers have been the engine for lifting about one billion people out of extreme poverty, helping to meet a key United Nations Sustainable Development Goal.[5] Indeed, rising prosperity in these countries has not just reduced poverty, but also enabled the emergence of a new wave of middle and affluent classes. Between 1990 and 2013, the latest year for which comprehensive data are available, the number of people living in extreme poverty in the 71 emerging economies fell from 1.84 billion to 766 million. Outperformers accounted for almost 95 percent of that change. Less than 11 percent of the world's population now lives in extreme poverty, down from 35 percent in 1990.[6] While China and India led the way, lifting some 900 million people out of extreme poverty (approximately 730 million and 170 million, respectively), Indonesia also elevated over 80 million people out of extreme poverty (Exhibit E3).[7]

Exhibit E3

Outperformers lifted approximately 1.1 billion people out of extreme poverty and increased household consumption by about $3.2 trillion.



1 Defined as individuals earning less than $1.90 per day (PPP $ 2005), N = 63 economies.
2 Data unavailable for outperformers: Azerbaijan, Ethiopia, Laos, Myanmar, Turkmenistan, and Uzbekistan; non-outperformers: Angola, Côte d'Ivoire, Ghana, Nepal, Venezuela, Zambia, and Zimbabwe.
NOTE: Figures may not sum to 100% because of rounding.

SOURCE: PovcalNet, World Bank; UNDP; McKinsey Global Institute analysis

At the same time, growing numbers of residents of these countries joined what we call the "consuming class"—that is, people with incomes high enough to become significant consumers of goods and services.[8] Globally, these highly urbanized consumers have become a powerful motor for global economic growth. We estimate that 440 cities globally could account for close to half of world GDP growth by 2025, largely because of additional spending by the consuming class.[9] The outperformers accounted for almost half of the growth in household spending of all emerging economies in the past 20 years.

5 The World Bank defines extreme poverty as living on less than $1.90 a day.
6 *Poverty and shared prosperity 2016: Taking on inequality*, World Bank, 2016.
7 *Atlas of Sustainable Development Goals: No poverty*, World Bank, 2018, datatopics.worldbank.org/sdgatlas.
8 We define consuming class or consumers as those individuals with an annual income of more than $3,600, or $10 per day at purchasing power parity (PPP), using constant 2005 PPP dollars. See *Urban world: Cities and the rise of the consuming class*, McKinsey Global Institute, June 2012, on McKinsey.com.
9 Ibid.

In the turbulent period for the global economy following the 2008 financial crisis, including the volatile commodity price cycle, some of the outperformers nonetheless recorded 3.5 percent annual GDP per capita growth between 2011 and 2016, even as a few of the exceptional historical performers, including Singapore, experienced a deceleration of growth. At the same time, a number of other countries have undergone growth spurts. They include Bangladesh, Bolivia, the Dominican Republic, Ghana, Poland, the Philippines, Rwanda, and Sri Lanka. Some but not all of these countries are also putting in place pro-growth policies that are strengthening their economic fundamentals, as we discuss later.

GOVERNMENT POLICIES ENABLED A PRO-GROWTH CYCLE BASED ON PRODUCTIVITY, INCOME, AND DEMAND

While the 18 outperformers vary considerably, spanning different income levels, sizes, regions (with the exception of Latin America, the Middle East, and North Africa), and factor endowments, our analysis suggests they share foundations of similar pro-growth cycles of rising productivity, income, and demand. Part and parcel of these foundations are competition policies that created an impetus for productivity growth and helped forge the big companies that have driven a significant part of GDP growth.

Policies aimed at supporting capital accumulation and ensuring stability helped create a pro-growth agenda

The pro-growth cycle starts with growing productivity, made possible by accumulating capital and technology. The fruits of improved productivity are then distributed throughout the economy in the form of more jobs and higher wages for workers, lifting more people into the middle class, and in turn supporting higher levels of consumption and savings.

Companies see increased profits, and governments collect additional tax revenue they can use to improve essential infrastructure. Wage growth translates into more disposable income, which boosts personal savings—some of it through mandatory payroll deductions for retirement savings—as well as investment and household consumption. This, along with better access to global markets, increases overall demand for goods. The outperformers we identify have historically stood out as better performers on most of these metrics, although opportunities remain.

For all the outperformer countries, increased productivity rather than a larger labor supply drove high rates of GDP growth.[10] Rising productivity, or total factor productivity (TFP) growth, which represents the efficient use of resources through technology, innovation, and better management, has in turn been enabled by capital accumulation and income growth (Exhibit E4).[11]

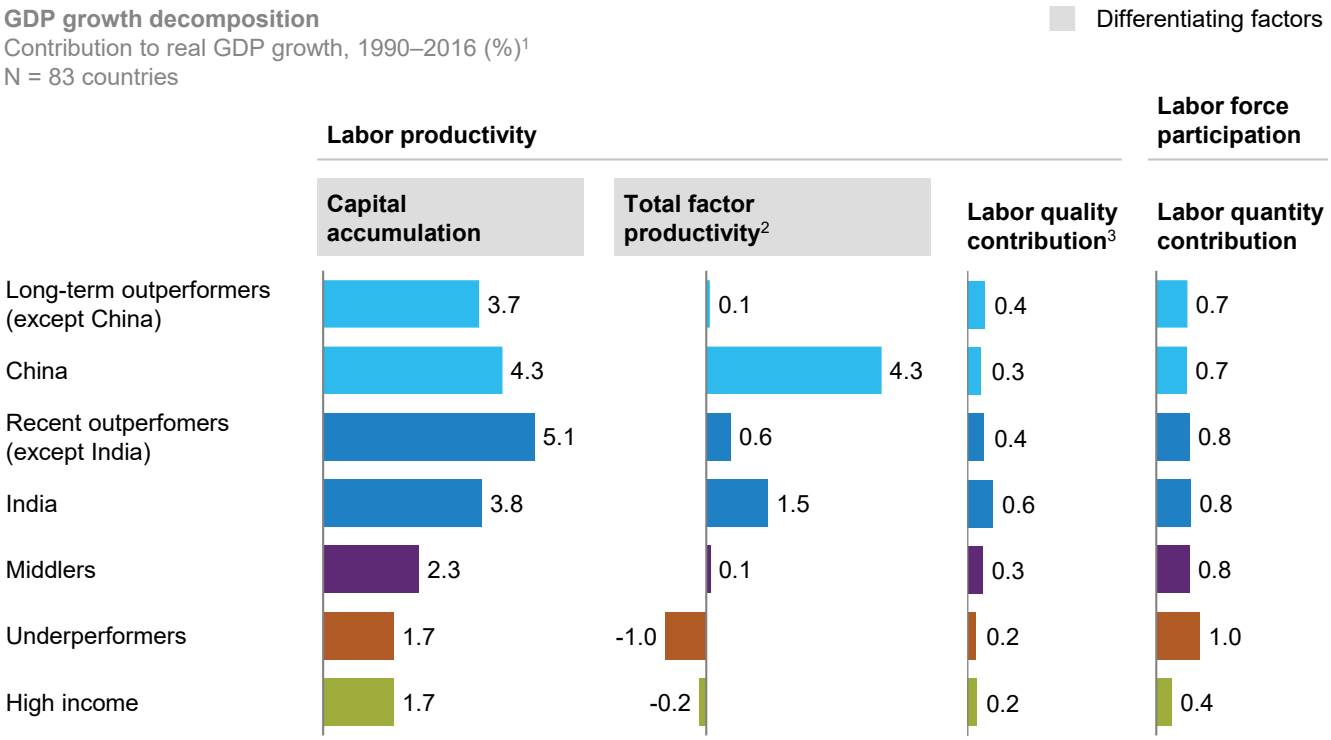
[10] In the 50-year period between 1964 and 2014, the total labor force in G-19 countries and Nigeria doubled, contributing about 48 percent of GDP growth in these economies, while rising productivity generated 52 percent. With slowing growth or declines in the working-age population in many countries, the onus on future GDP growth will fall more heavily on productivity improvements. For details, see *Global growth: Can productivity save the day in an aging world?* McKinsey Global Institute, January 2015, on McKinsey.com.

[11] Robert E. Hall and Charles I. Jones, "Why do some countries produce so much more output per worker than others?" *The Quarterly Journal of Economics*, February 1999, Volume 114, Number 1, pp. 83–116.

Exhibit E4

Capital accumulation and total factor productivity have been major drivers of economic growth for outperforming economies.

GDP growth decomposition
Contribution to real GDP growth, 1990–2016 (%)[1]
N = 83 countries



1 Simple average across economies within cohorts and across years within countries. 1995–2016 for recent outperformers.
2 Long-term outperformers' low rate of total factor productivity growth was caused, in part, by the 1997 Asian financial crisis. Further, capital accumulation and total factor productivity were likely lower for long-term outperformers over this period as the growth accelerations in these economies commenced prior to 1990. For example, from 1965 to 1990, South Korea's average growth of output attributable to total factor productivity is estimated to be 2.39%, while capital's contribution was 4.27% compared to total output growth averaging 8.78% per year (Nirvikar, Singh, and Hung Trieu, 1996).
3 Labor quality contribution data are constructed using data on employment and compensation by educational attainment. These data are collected from various sources, including Eurostat, World Input-Output Database and various country-specific KLEMS (capital, labor, energy, material and services) databases.

SOURCE: Economics Analytics Platform; World Bank; The Conference Board Total Economy Database; McKinsey Global Institute analysis

Indeed, more than two-thirds of the GDP growth in outperforming countries over the past 30 years is attributable to a rapid rise in productivity correlated with industrialization: an annual average productivity gain of 4.1 percent versus 0.8 percent for the other developing economies.[12] That rapid development initially drives the pro-growth cycle by creating wealth and boosting demand, which translates into more jobs.

Capital accumulation—enabled by high rates of investment and domestic savings—contributed an average of approximately four percentage points to economic growth each year between 1990 and 2016 for the seven 50-year outperformers in our sample, and five percentage points for the 11 shorter-term outperformers, between 1995 and 2016. Investment as a share of GDP averaged 30 percent for long-term outperformers and 20 percent for recent outperformers, or three to 13 percentage points higher than investment in other developing economies. The difference in domestic savings as a share of GDP was ten to 30 percentage points higher.

[12] We used McKinsey & Company's proprietary Global Growth Model to simulate the effects of the productivity increase. For details of the model, see Luis Enriquez, Sven Smit, and Jonathan Ablett, *Shifting tides: Global economic scenarios for 2015–25*, McKinsey & Company, September 2015, on McKinsey.com.

The outperformers could tap into higher levels of domestic savings, some of which was required by government-run pension savings schemes, such as Singapore's Central Provident Fund, and some of which was encouraged by governments developing strong financial institutions and convenient digital banking services.[13] Higher domestic savings enabled more investment in infrastructure, among other areas. Outperformers also attracted the largest share of foreign investment, almost 70 percent, of the approximately $900 billion invested in emerging markets between 2000 and 2016.[14]

For its part, total factor productivity accounted for one percentage point of annual GDP growth on average from 1995 to 2016 for the 20-year outperformers, compared with having limited or even negative effects in other developing economies and advanced economies. The 1997 Asian financial crisis took a toll on TFP among long-term outperformers, but in China, which was less affected by that crisis, TFP accounted for 4.4 percentage points of annual GDP growth from 1990 to 2016.[15]

Strong productivity growth in the 18 outperformers translated into exceptional income growth. Real wages and benefits rose by an average 4.6 percent annually in the seven long-term outperforming countries between 1980 and 2014. China led the way, with incomes there rising by 8.6 percent annually. Among the more recent outperforming countries, real wages and benefits grew by 6.0 percent per year between 1995 and 2014. This was about triple the level in other developing and advanced economies. Household consumption spending generated by rising incomes grew about three percentage points faster in the 18 outperforming countries than in other developing or advanced economies.

Another essential feature of these countries has been their ability to achieve macroeconomic stability, even at a time of global volatility, by adapting economic policies to fit their local context and changing conditions. For example, governments took quick action to ensure rapid recovery from volatile episodes such as the Asian financial crisis of 1997 and the global financial crisis of 2008 and 2009. When, in 2013, the prospect of central banks' unwinding of quantitative easing led to the so-called taper tantrum in financial markets in emerging economies, several countries, including India and Indonesia, implemented monetary, fiscal, and exchange-rate stabilization measures that served as a buffer to market pressure.

Outperforming economies are more connected to foreign markets, enabling them to tap into global demand

Outperforming economies have benefited from their ability to tap into global demand growth through export markets, giving them greater economies of scale.[16] This higher export orientation is reflected in MGI's Connectedness Index, which assesses the extent of countries' engagement with the global economy through inflows and outflows of goods, services, finance, people, and data.[17]

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13 *What is the Central Provident Fund (CPF)*, Singapore Ministry of Manpower, mom.gov.sg.

14 PitchBook Deal Analytics.

15 Nirvikar Singh and Hung Trieu, *Total factor productivity growth in Japan, South Korea, and Taiwan*, University of California, Santa Cruz, working paper, July 1996.

16 Jonathan Anderson, *How to think about emerging markets (2018 edition)*, Emerging Advisors Group, April 24, 2018.

17 MGI's Connectedness Index offers a comprehensive look at how countries participate in inflows and outflows of goods, services, finance, people, and data. The index takes into account the size of each flow for a country relative to its own GDP or population (flow intensity) as well as its share of each total global flow. *Digital globalization: The new era of global flows*, McKinsey Global Institute, March 2016, on McKinsey.com.

In 1980, outperformers accounted for 7 percent or less of global inflows and outflows across goods, services, and finance. By 2016, they had increased their share to 19 percent or more. The greatest increase came from goods trades. Outperformer economies captured almost 30 percent of global share by 2016—of which China accounted for 13 percentage points—compared with 1 percent in 1980. Indeed, seven of the outperformers rank in the top 30 countries globally for connectedness, including Singapore in second place, China in ninth, South Korea 15th, Malaysia 20th, Thailand 21st, Vietnam 26th, and India 30th.

Competition policies created impetus for productivity growth

Many outperformer countries recognized the importance of competitive private-sector firms and nurtured environments in which they could invest and compete, even as they created incentives for productivity improvements. Rather than picking winning sectors or winning companies within sectors, they focused on boosting productivity and enabling competition within sectors. As a result, sectors with a larger share of big firms grew faster, increased productivity by more, paid workers better, and realized greater levels of investment. In some but not all countries, governments helped incubate competitive domestic companies through sector-wide support for infant industries, including low-cost loans, preferential exchange rates, low tax rates, and R&D subsidies. However, protection was gradually lifted as these industries became more competitive, limiting market distortions. In some cases, support was tied to conditions that encouraged firms to increase productivity. For example, South Korea's import policy in the 1960s strictly limited all but strategic imports and imposed high tariffs, but the country gradually transitioned to a more (but still not entirely) open scheme in the 1980s.[18]

Attracting foreign investors, in the form of foreign invested enterprises (FIEs) and foreign direct investment, has also been a way for governments to contribute to productivity growth. China used joint venture structures and favorable FDI policies for FIEs, including preferential treatment, for example. Local firms can benefit from the technology spillover from these foreign firms, and FIEs help emerging economies participate in the global value chain.[19] In China, for example, they account for about half of exports, according to the Ministry of Commerce.[20] Improving government effectiveness helps attract foreign investment (see Box E2, "Outperforming economies benefit from improved government effectiveness").

Governments also collaborated with the private sector to co-create solutions in multiple areas, including infrastructure, technology, and financial services. Vietnam, for example, moved rapidly from being a socialist-market economy without a private sector to becoming a deregulated capitalist economy that has seen an influx of private enterprise and foreign investment. China allowed intercity and interprovincial competition, plus competition among state-owned and private-sector companies, including for foreign direct investment.

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[18] Kwan S. Kim, *The Korean miracle (1962–1980) revisited: Myths and realities in strategy and development*, Kellogg Institute working paper number 166, November 1991.

[19] John Van Reenan and Linda Yueh, *Why has China grown so fast? The role of international technology transfers*, Oxford University Department of Economics, working paper, January 2012.

[20] *Foreign direct investment—The China story*, World Bank, July 16, 2010.

THE ROLE OF PRODUCTIVE FIRMS IS A KEY CHARACTERISTIC OF GROWTH OF OUTPERFORMING ECONOMIES

Growth and development economists over the decades have extensively documented policies that have driven growth in emerging economies.[21] Less studied is the contribution to that growth of globally competitive, nimbly managed, and highly productive companies founded in and based in developing economies. In the 18 outperforming countries, we find that these firms, backed by macroeconomic and other enabling policies, not only helped boost GDP but also are catalysts for change at home.

[21] See, for example, Alice H. Amsden, *Rise of "The Rest": Challenges to the West from Late-Industrializing Economies*, Oxford, UK: Oxford University Press, 2001; Edward K.Y. Chen, *Hypergrowth in Asian Economies: A Comparative Study of Hong Kong, Japan, Korea, Singapore, and Taiwan*, London: Macmillan, 1979; and Richard R. Nelson and Howard Pack, "The Asian miracle and modern growth theory," *The Economic Journal*, July 1999, Volume 109, Number 457.

Box E2. Outperforming economies benefit from improved government effectiveness

Government effectiveness is a characteristic of the outperformers, as reflected in their above-average improvement in the World Bank's Government Effectiveness Score (Exhibit E5).[1]

Firms in many of the outperforming economies face fewer regulatory and tax barriers compared with companies in other countries, and this in turn encourages business creation and improved efficiency. According to data from the World Bank Enterprise Survey, firms in the outperformer economies are less likely than those in other developing economies to consider tax management a major obstacle (9 percent of respondents versus 23 percent). Similarly, fewer firms in outperformer economies reported customs delays and trade barriers (9 percent versus 16 percent), facilitating exporting and importing activities. Senior managers in other developing economies report spending 11 percent of their time on government regulatory issues, while their peers in outperformer economies say they spend only 5 percent.[2]

Outperformer governments have used pilot programs and experiments to test new ideas in a variety of contexts, modifying and updating them as necessary, and then scaling up policies that work. China famously used special economic zones to test policies before introducing them broadly. Regulatory sandboxes, such as those used by the Monetary Authority of Singapore, also facilitated policy experiments while containing consequences of failure. Governments have also worked to improve the capabilities of the public sector, including hiring better government clerks, inspectors, and regulators. For example, South Korea invested in sending some of its civil servants to train in more advanced economies, while China systematically rotates its bureaucrats by function and geography.[3]

[1] World Bank Worldwide Governance Indicators, 2017.

[2] World Bank Enterprise Survey.

[3] The focus of our analysis is on the role of government and policies as they relate to economic performance and does not explore political processes, types of government, or the functioning of civil society.

We define large firms here as public companies with annual revenues of at least $500 million.[22] From 1995 to 2016, their revenue relative to GDP has almost tripled in outperformer developing economies, growing from the equivalent of 22 percent of GDP to 64 percent, close to levels in high-income economies and dwarfing levels in other developing economies. At the same time, we estimate that the contribution of value added by these outperformer firms to national GDP also grew rapidly, from 11 percent in 1995 to 27 percent in 2016—or double the share among non-outperforming emerging economies (Exhibit E6).

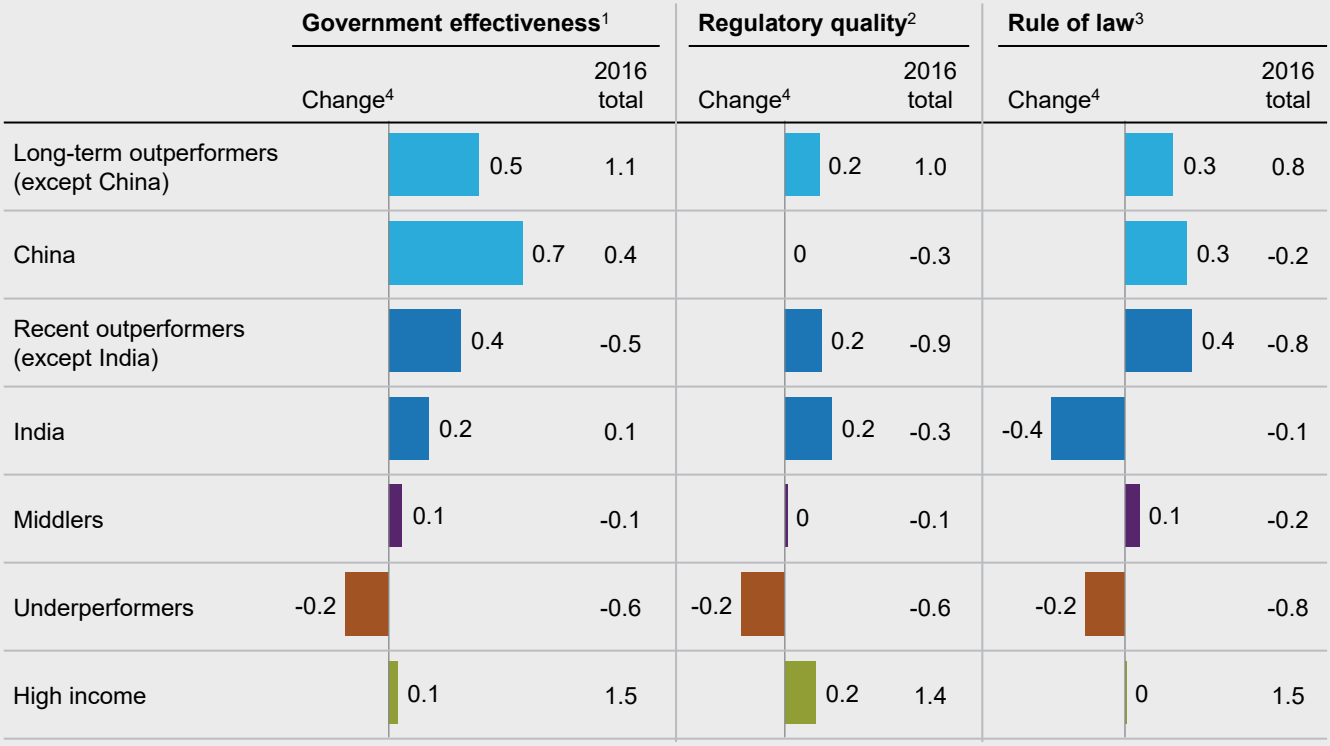
[22] For certain of our analyses including that of total shareholder returns, we use slightly different definitions, which we note where relevant. For our company analyses, we looked at more than 13,000 listed companies in 27 countries using McKinsey & Company's Corporate Performance Analytics tool. See technical appendix.

Box E2. Outperforming economies improved government effectiveness (continued)

Exhibit E5

Outperforming developing economies improved policy and institutional effectiveness.

Absolute change in Worldwide Governance Indicators score, 1996–2016
Simple average across archetypes
Score ranges from approximately -2.5 (weak) to 2.5 (strong)



1 Reflects perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.
2 Reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.
3 Reflects perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.
4 Changes show only the difference between 1996 and 2016 and do not reflect declines early in that period or steady scores more recently.

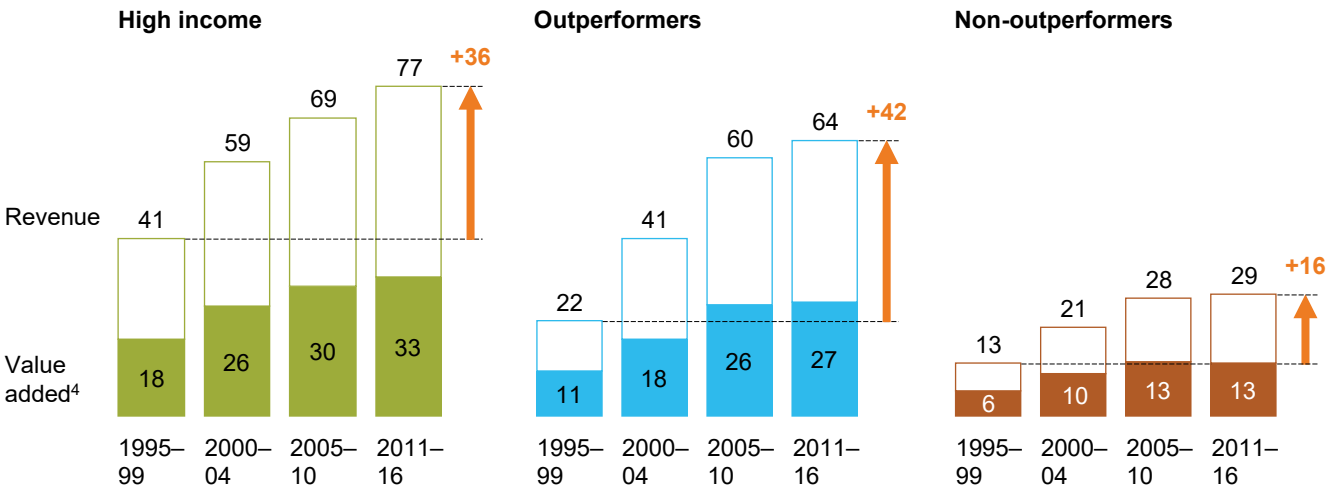
SOURCE: World Bank Worldwide Governance Indicators 2017; McKinsey Global Institute analysis

Exhibit E6

Large companies have been important to the growth of outperforming developing economies.

N = 25 economies; 6,474 companies[1,2]

Ratio of large-company revenue to GDP, 1995–2016[3]
%



1 Outperformers include China, India, Indonesia, Malaysia, Singapore, South Korea, and Thailand; high-income economies include Canada, France, Germany, Italy, Japan, the United Kingdom, and United States; non-outperformers include Argentina, Brazil, Egypt, Mexico, Nigeria, Pakistan, Poland, Russia, Philippines, South Africa, and Turkey; Hong Kong is excluded as an outlier (large-company revenue is equivalent to more than 340% of GDP).
2 Publicly listed companies with more than $500 million in revenue in 2016.
3 Simple average across countries; 5-year averages taken due to year-on-year volatility.
4 Gross value added has been calculated as the difference between revenue and cost of goods sold; GVA contribution of large financial services firms has been estimated.
NOTE: Figures may not sum to 100% because of rounding.

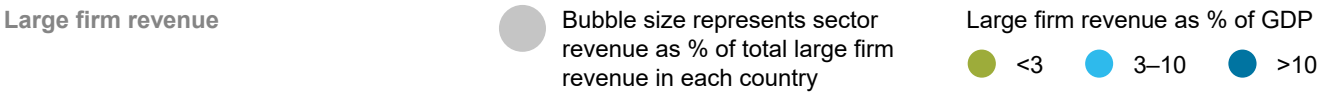
SOURCE: World Bank; McKinsey Corporate Performance Analytics; McKinsey Global Institute analysis

Large firms tend to focus on sectors that tap into global demand and which have helped drive a greater share of exports for the outperforming economies. They bring productivity benefits by investing in assets, R&D, and job training at a higher rate than small and medium-size enterprises—and they tend to pay higher wages, upward of 75 percent more in countries such as Indonesia and South Korea.[23] Along with these direct effects, large firms indirectly stimulate the creation, growth, and productivity of small and medium-size enterprises in their supply chains—and in turn depend on these SMEs to provide intermediate inputs for their ecosystem (Exhibit E7).

[23] This wage gap also has some less positive effects, including the potential to exacerbate income inequality. Lucia Cusmano, *Small, Medium, Strong: Trends in SME Performance and Business Conditions*, Paris, France: OECD Publishing, 2017; Kim Kyung-ho, "Wage gap widening between SMEs, large firms," *Korea Herald*, August 31, 2016.

Exhibit E7

Firms from outperforming countries operate in a wide variety of sectors.


Large firm revenue
Bubble size represents sector revenue as % of total large firm revenue in each country
Large firm revenue as % of GDP
<3
3–10
>10

	South Korea	Singapore	Thailand	China	Malaysia	India	Indonesia
Accommodation, food services, and entertainment/recreation activities							
Agriculture, forestry, and fishing							
Automotive and assembly							
Construction and real estate							
Energy and basic materials							
Financial and insurance services							
Healthcare							
Manufacturing: Consumer packaged goods							
Manufacturing: High tech							
Manufacturing: Other (chemicals, steel, textiles, etc)							
Manufacturing: Pharmaceuticals and medical products							
Telecommunications, media, and technology services							
Travel, transport, and logistics							
Wholesale and retail trade							
Other							
Total large firm revenue $ billion	**1,684**	**220**	**237**	**5,123**	**140**	**866**	**158**
Share of GDP %	**129**	**75**	**58**	**54**	**41**	**35**	**15**

NOTE: Hong Kong omitted as large firm revenue >300% of GDP; Singapore agriculture, forestry, and fishing omitted as outlier.

SOURCE: IMF; McKinsey Corporate Performance Analytics; McKinsey Global Institute analysis

COMPETITIVE EMERGING-MARKET FIRMS AS ASPIRING GLOBAL LEADERS

Rising to the top in the outperforming emerging economies—and then staying there—is by no means a foregone conclusion for large firms, many of which are far from the common stereotype of outsize government-protected oligopolies. Our analysis finds that the competitive dynamics in many (but not all) of the outperforming countries can be brutal, with only the strongest surviving. Domestic competition, in turn, has enabled the winners to earn a disproportionate share of revenue and income and to outperform their counterparts in advanced economies across key dimensions, including total returns to shareholders. For companies in high-income countries, the developing world has thus become both an opportunity for growth and the source of tough new global competition.

It's hard to be a winning company in an outperforming economy

One indication of the competitive corporate environment is that outperforming countries have about twice as many big companies per trillion dollars of GDP as other emerging economies, just over 160 firms per $1 trillion in 2016 versus 80 firms in non-outperforming peers (and 95 in high-income countries).[24] As a result, revenue growth is shared more widely. In high-income countries, for example, 8 percent of firms account for 80 percent of all big-company revenue growth. In the outperformers, that figure is 22 percent of firms.

Contested leadership is a vital sign of the competitive environment. Less than half (45 percent) of firms that reached the top quintile in terms of economic profit generation between 2001 and 2005 managed to stay in place for a decade, according to our analysis. That was far less than incumbents in high-income economies, 62 percent of which stayed in the top quintile for the same decade.[25] This churn holds true for virtually all the sectors we studied and for all the outperformer countries for which data were available (Exhibit E8).[26]

The rewards for the successful companies that stay on top are substantial: the top 10 percent of large firms in terms of value creation in the outperforming countries captured 454 percent of the net economic profits generated by all companies. That is more than four times the proportion in high-income countries, where the top 10 percent captures only 106 percent of all net economic profit. But the penalties for failure are larger, too: the bottom 10 percent of firms in outperformer emerging economies accrues losses equivalent to 289 percent of the total, compared with 31 percent of the respective profit pool for top large firms in advanced economies.

[24] In 1995, the outperformers had almost three times as many companies per trillion dollars of GDP, but the ratio has come down as GDP has grown. In non-outperforming developing economies, the number has stayed flat.

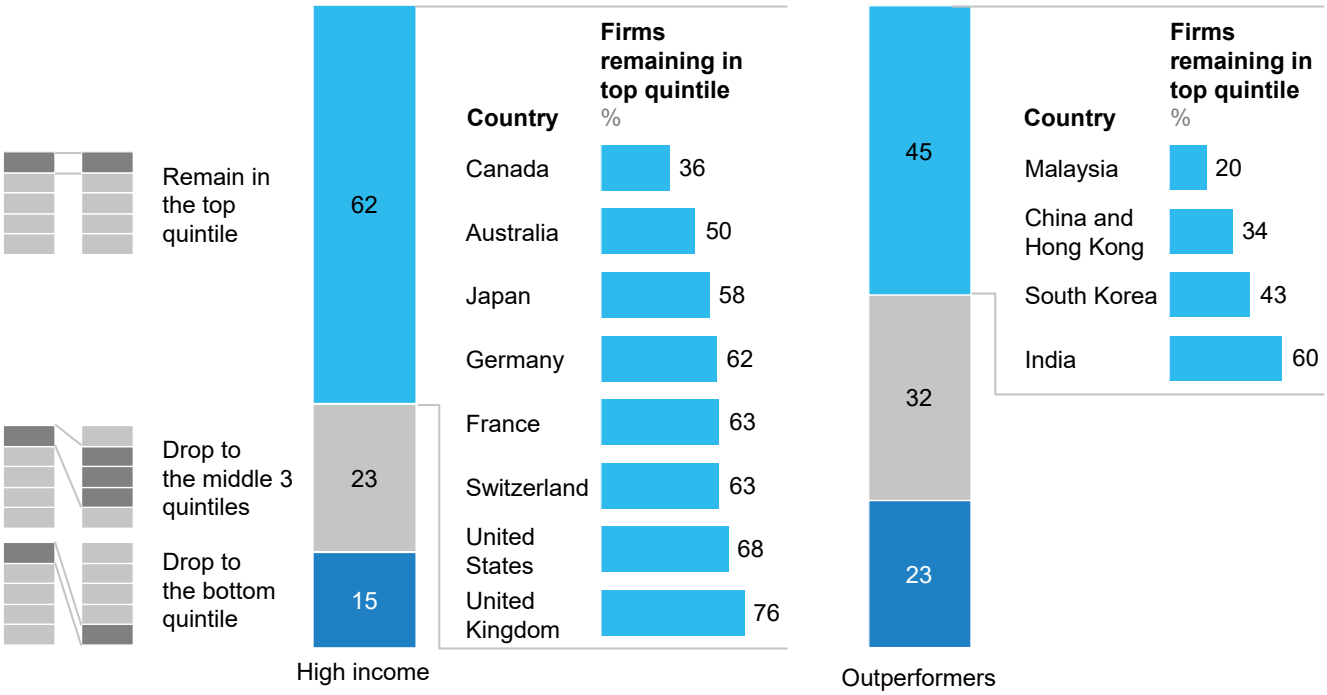
[25] See technical appendix for details of our methodology in calculating contested leadership.

[26] In our discussion of successful large firms in this report, we highlight the aggregate trends we found in our research but do not systematically list the companies themselves, especially given the high churn rate among top-quintile firms. We are also conscious that some emerging-economy firms may have high debt levels or may be creating economic profit largely because of market forces outside their control, for example commodity prices.

Exhibit E8

Emerging economies exhibit greater contested leadership among top firms.

Distribution of trajectory for top quintile economic profit generators over 10 years[1]
% (N = 48 countries and 2,284 total companies[2,3])



1 Quintiles based on rankings within archetype by economic profit generation between 2001–05 and 2011–15. Economic profit defined as net operating profit less adjusted taxes (NOPLAT) – [invested capital x weighted average cost of capital].
2 Outperformers include China, India, Indonesia, Malaysia, Thailand, Hong Kong, Singapore, and South Korea; high-income countries include Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Israel, Italy, Japan, Netherlands, Norway, Saudi Arabia, Spain, Switzerland, United Arab Emirates, the United Kingdom, and the United States; non-outperformer emerging economies include Argentina, Brazil, Chile, Colombia, Czech Republic, Egypt, Greece, Hungary, Mexico, Morocco, Nigeria, Pakistan, Peru, Philippines, Poland, Portugal, Russia, Slovak Republic, South Africa, and Turkey.
3 Publicly listed companies with more than $500 million in revenue in 2016, of which 457 were top quintile.

SOURCE: McKinsey Strategy Practice (Beating the Odds model v20.0); McKinsey Corporate Performance Analytics; McKinsey Global Institute analysis

The most competitive companies from emerging economies are becoming global players that outperform their counterparts in advanced economies

The emerging-market firms that survive this rite of passage emerge hardened and formidable competitors on the global stage. They cover a wide range of sectors, with significant differences depending on the structure of national economies.

Between 1995 and 2016, large, publicly listed companies in the outperforming countries grew their net income each year four to five percentage points faster than firms in other emerging economies. On a global level, they contributed about 40 percent of the revenue and net income growth of all large public companies from 2005 to 2016, even though they accounted for only about 25 percent of total revenue and net income in 2016. More than 120 of these companies have joined the Fortune Global 500 list since 2000.

The best-performing companies also outdid firms in advanced economies on a key performance indicator: total return to shareholders. Between 2014 and 2016, total return to shareholders from the top quartile of outperformer companies was 23 percent on average, compared with 15 percent for top-quartile firms in high-income countries and 13 percent in non-outperformer emerging economies. However, return on invested capital was higher among companies in high-income countries, which tend to focus more on maximizing profit margins over revenue growth.

To understand the contribution of these big companies more fully, we surveyed executives from more than 2,000 companies across seven countries and ten industries. Three characteristics stand out:

Top firms in emerging economies devote more attention to innovation, deriving 56 percent of their revenue from new products and services, eight percentage points more than their peers in advanced economies. Many top companies take the lead in addressing technological and digital disruption in their industries (Exhibit E9). This, in turn, is helping some cities, especially in China, India, and South Korea, emerge as clusters of innovation as a result. The number of patents granted annually in Bangalore, Beijing, and Shanghai grew more than twice as fast as in Silicon Valley, the largest innovation cluster in the world. Individual examples of creative innovation abound. The Chinese phone manufacturer Transsion is one: it has become the leading brand of smart and feature phones in Africa by making handsets that not only are affordable but can accommodate up to four SIM cards to let customers in many African countries avoid the high cost of calling someone who uses a different mobile provider. It is now growing rapidly in India, making inroads against market leader Samsung in some markets just a year after launching its four brands.[27]

Second, these companies are more aggressive in their investment strategies and nimbler in allocating resources.[28] They invest almost twice as much as comparable businesses in advanced economies, measured as a ratio of capital spending to depreciation. This gap holds across most industries we analyzed. In India, for example, Reliance Jio, a mobile network operator that launched in September 2016, has already invested $30 billion in its fourth generation (4G) VoLTE mobile network, leapfrogging incumbents that were gradually transitioning out of older technologies. In less than two years of operations, the company has become the third-largest telecom operator in India by market share.[29] These leading companies are also faster in assigning resources. On average, they make important investment decisions six to eight weeks faster than similar companies in advanced economies.[30] That amounts to about 30 to 40 percent less time.

Third, the most successful large companies in emerging economies are 27 percentage points more likely than their peers in high-income countries to prioritize growth outside their home markets—and in doing so, have become powerful global competitors.[31] The Thai conglomerate CP Group is one example. Focused on agribusiness, real estate, retail, and telecommunications, CP Group was the first foreign investor in China´s first special economic zone in Shenzhen in 1981; today, its Chinese businesses account for a significant portion of its $40 billion to $50 billion annual sales.[32] In Africa, Ethiopian Airlines has expanded rapidly through acquisitions, including large stakes in Malawian Airlines (49 percent) and Zambia Airways (45 percent), and partnerships, such as the one with the Guinean government to start Guinea Airlines and with ASKY Airlines in Togo. The

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27 Writankar Mukherjee, “Chinese phone maker Transsion Holdings eyes top three slots in Indian market,” *Economic Times,* August 23, 2017, economictimes.indiatimes.com; and Li Tao, “How an unknown Chinese phone maker became No 3 in India by solving the oily fingers problem,” *South China Morning Post*, January 12, 2018, scmp.com.

28 One explanation for this difference is that the ownership structure of these companies and strong family or state control may allow for long-term investment and scale. See *Playing to win: The new global competition for corporate profits*, McKinsey Global Institute, September 2015.

29 Promit Mukherjee, “Reliance lifts Jio investment above $30 billion after record year,” Reuters, April 25, 2017, in.reuters.com.

30 McKinsey 2017 Firm Survey.

31 Ibid.

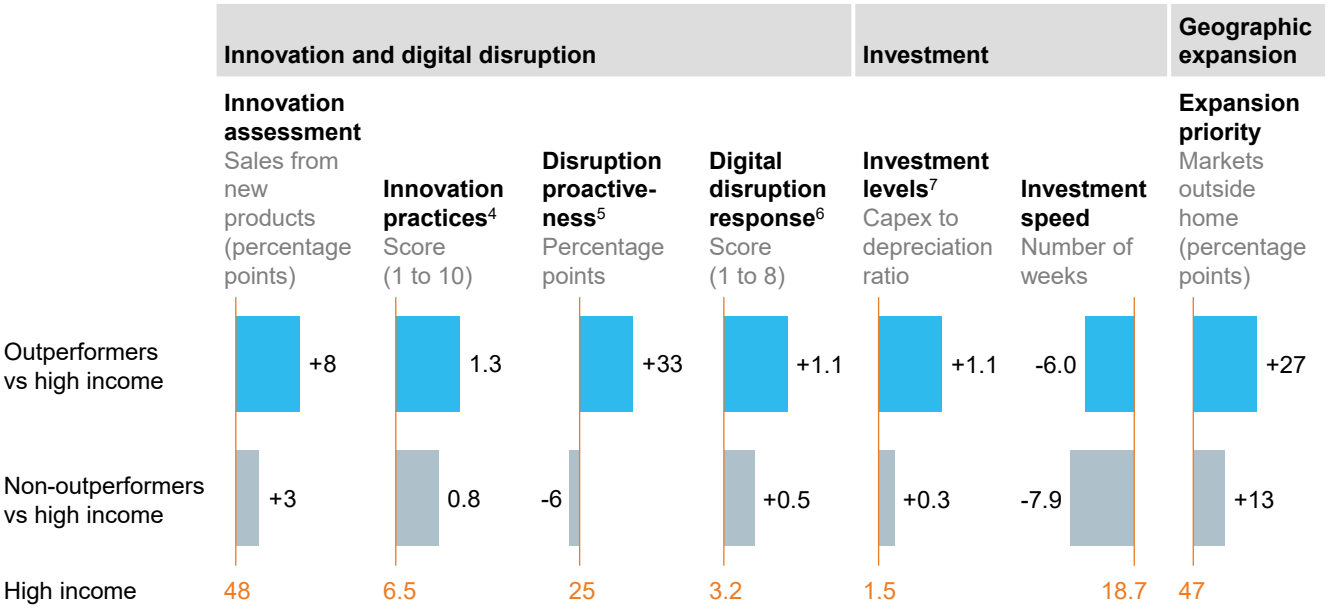
32 Usanee Mongkolporn, “New Charoen Pokphand CEO unveils ‘CP 4.0’ plan,” *The Nation*, February 24, 2017.

company earned $273 million in profit in 2015–16 while the African airline industry overall lost $900 million.[33]

Exhibit E9

Top firms in outperformer economies are bolder, quicker, and more forceful than their peers.

Comparison of self-reported performance and practices for top-performing firms across archetypes[1,2]
Absolute difference compared to top-performing firms from high-income economies
N = 7 countries, 2,172 companies[3]



1 Top-performing defined as top quartile of self-reported revenue growth (over past 3 years) adjusted for country and industry.
2 All reported statistics are calculated as weighted averages across countries within archetype.
3 Outperformers include China, India, and Indonesia; non-outperformer emerging economies include Brazil and South Africa; high income includes Germany and the United States.
4 Score marks number of dimensions for which respondent answered either “Strongly agree” or “Agree” among 10 dimensions that describe the company’s current innovation capabilities and practices.
5 Proactiveness measured as answering either "We have changed our longer-term corporate strategy to address the disruption” or "We initiated the disruption(s)" to question “Which of the following statements best describes your company’s approach to addressing the technological and digital disruptions that have affected your industry in the past three years?"
6 Score marks number of “changes [made] to the strategy of individual business units…in response to technological and digital disruptions that have affected your industry in the past three years.”
7 Based on financial data for large publicly listed companies with more than $500 million in annual revenue; top performing defined as top quartile in terms of total return to shareholders adjusted by industry.
NOTE: Not to scale.

SOURCE: McKinsey 2017 Firm Survey; McKinsey Corporate Performance Analytics; McKinsey Global Institute analysis

NEW OPPORTUNITIES FOR EMERGING ECONOMIES IN CHANGING TIMES

Global conditions are changing. Manufacturing seems to be peaking earlier than it used to in developing countries, for example, and cross-border trade flows have lost some of their dynamism since the 2008 financial crisis. With these changes come not only challenges but also new opportunities for emerging economies in both manufacturing and services.

[33] *Ethiopian becomes strategic partner in new Malawi airlines*, Ethiopian Airlines press release, July 13, 2013, ethiopianairlines.com; Tom Collins, “Ethiopian Airlines on the up,” *African Business Magazine*, August 8, 2017, africanbusinessmagazine.com; Abdi Latif Dahir, “How Africa’s largest airline will dominate the continent’s skies,” Quartz Africa, January 20, 2018, qz.com.

Global trends in demographics, trade and other flows, and technology imply emerging markets will be the main battleground for global growth

We highlight three fundamental changes in the global landscape that all emerging economies will have to navigate: changing demographics, rising global prosperity, and urbanization, which will influence consumption; shifting patterns of trade and other cross-border flows; and the increased adoption of digital and automation technologies, which could challenge some traditional development paths even as they potentially boost productivity and GDP growth. The combined effect of these trends is to heighten the importance of emerging markets in the global economy both as sources of demand and as competition.

Demographic change is already affecting the global economy, with a decline in the working-age population in some countries such as Germany and Japan acting as a drag on growth. At the same time, we see a powerful countertrend in the form of rising urbanization in emerging economies, which is boosting consumption as people move to cities and join the burgeoning consuming class. We expect emerging economies overall to represent 62 percent of total consumption growth between 2015 and 2030, the equivalent of $15.5 trillion, with 22 percent of that coming from China alone—a country that is also undergoing the aging phenomenon.[34]

Growth in global trade in goods and services slowed following the 2008 financial crisis, and trade and migration face a political backlash in some countries. At the same time, cross-border digital flows have grown apace, by 147 times from 2005 to 2017, and have assumed a major role in global commerce.[35] Recent MGI research has shown that, for the first time in history, developing economies participate in more than half of global trade of goods, and "south-south" trade—shorthand for trade among emerging economies, even if they are not in the Southern Hemisphere—is growing faster than north-south or north-north trade. China is a significant driver of this south-south trade. As it develops, it is focusing more on R&D and capital-intensive manufacturing; this is creating opportunities in labor-intensive manufacturing for Vietnam, India, and other low-income emerging economies in recent times.[36] Overall, the share of goods trade among emerging markets, both south-south and China-south, has risen from 8 percent in 1995 to 20 percent in 2016 (Exhibit E10).

A digital revolution is also unfolding. Recent rapid advances in automation and artificial intelligence could give a much-needed boost to productivity and per capita GDP growth globally, helping counter the demographic changes noted above. We estimate that automation has the potential to increase productivity in developing economies by 0.8 to 1.2 percentage points a year between 2015 and 2030.[37] Digital technologies have already enabled new business models and opened new markets. In Kenya, for example, M-Pesa allows mobile money transfers, while in Indonesia, Go-Jek, a motorcycle-hailing application, has opened new frontiers in transportation using technology.

While many jobs will be displaced by adoption of the new technologies in the workplace, our research suggests that enough new work will likely be created, especially in emerging economies, to offset those jobs lost. Jobs of the future including in emerging economies will nonetheless require new skills and higher educational attainment than today's jobs, posing

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[34] *Urban world: The global consumers to watch,* McKinsey Global Institute, March 2016, on McKinsey.com.

[35] McKinsey Global Flows database 2.0.

[36] China's share of emerging economies' labor-intensive manufactured exports rose from 33 percent in 2000 to 56 percent in 2014, but declined to 53 percent in 2016, while its share of emerging economies' R&D and capital-intensive manufacturing increased.

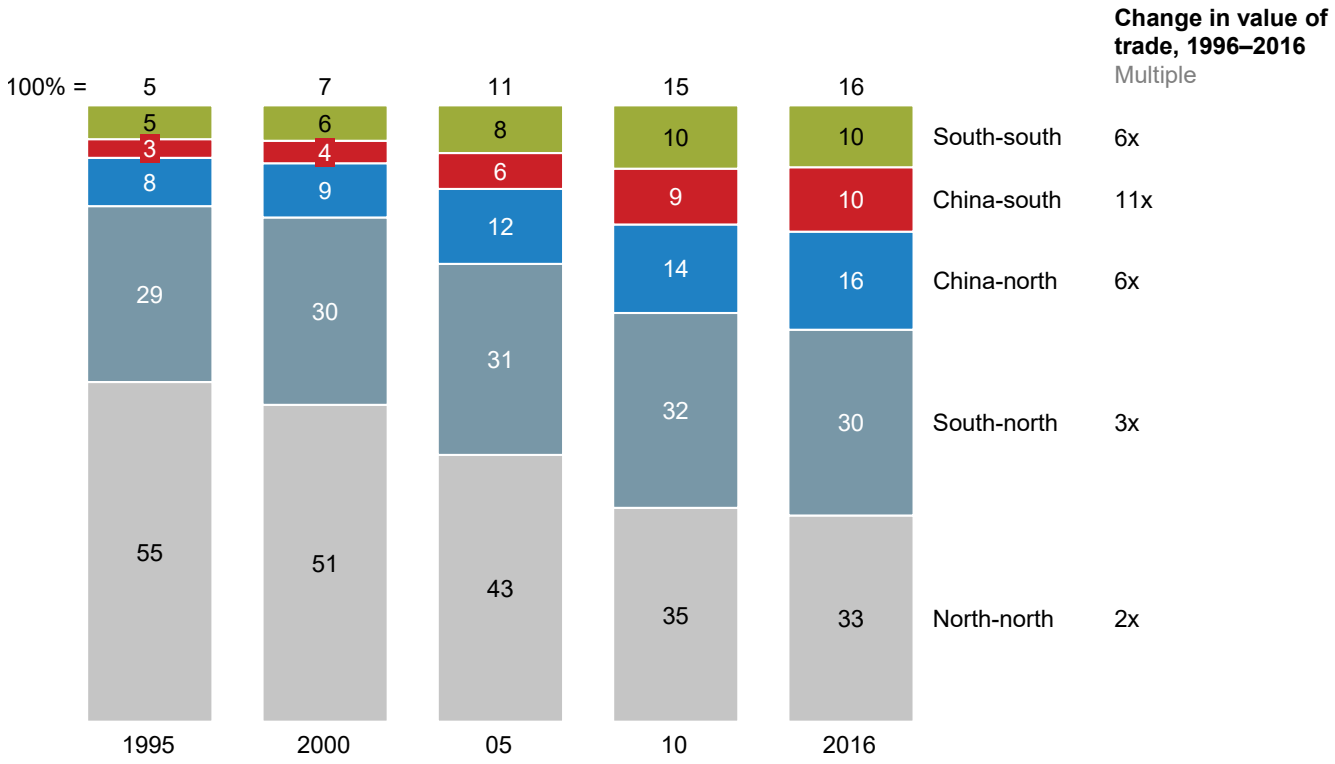
[37] This estimate is based on a scenario for the pace of automation adoption in the midpoint of our range, between the fastest and the slowest adoption outlined in our January 2017 automation report and subsequently updated. *A future that works: Automation, employment, and productivity*, McKinsey Global Institute, January 2017, on McKinsey.com.

a significant training and retraining challenge to governments, educational institutions, and companies.[38]

Exhibit E10

The share of goods trade among emerging markets (south-south and China-south) increased from 8 percent in 1995 to 20 percent in 2016.

Goods trade by development status[1]
%; $ trillion (current $)



1 Global imports of goods; north and south defined as developed and emerging markets respectively.
NOTE: Figures may not sum to 100% because of rounding.

SOURCE: UNCTAD; McKinsey Global Institute analysis

Manufacturing has continued strong growth opportunities

Manufacturing has been a powerful engine of economic growth and employment in outperforming economies over the past three decades, and has tended to follow a similar pattern: its share of employment eventually peaks and starts to decline, at which point the service sector takes over as leading job creator. Researchers recently found that this peak is occurring earlier and earlier in the development process, a phenomenon that Dani Rodrik, an economist at Harvard University, has dubbed "premature deindustrialization."[39] This phenomenon complicates but may not frustrate developing economies' ambitions; we find that manufacturing may still have room to grow, especially in low-income countries, and it can remain a source of job creation, especially where low wages and a strategic location make a country an attractive destination for garment makers and other labor-intensive manufacturers.

[38] See *Jobs lost, jobs gained: Workforce transitions in a time of automation*, McKinsey Global Institute, December 2017, on McKinsey.com; *Skill shift: Automation and the future of the workforce*, McKinsey Global Institute, May 2018, on McKinsey.com.

[39] Dani Rodrik, "Premature deindustrialization," *Journal of Economic Growth*, March 2016, Volume 21, Number 1, pp.1–33.

Our analysis shows that more than 20 countries can still increase the share of employment and value-added of manufacturing sectors in the economy (Exhibit E11). Some developing economies, for example, are benefiting from China's shift away from the manufacture and export of labor-intensive goods. In Bangladesh, manufacturing's contribution to GDP rose to 22 percent from 16 percent between 2005 and 2016, and its share of the labor force increased to 14 percent from 11 percent. Vietnam posted similar gains, with manufacturing's share of GDP climbing to 21 percent from 16 percent from 2009 to 2016.[40] Countries, especially those with relatively lower levels of manufacturing share to begin with, can generate manufacturing-led growth, provided they focus on creating mechanisms to help businesses to compete.

Much of that opportunity is likely to come from growing consumer demand in developing economies as incomes increase. Indeed, China and India's growth in imports of manufactured goods to 2030 could surpass the import growth registered by the United States and Western Europe in the 1980s and 1990s, according to our estimate. Manufacturing does not just create jobs and growth in manufacturing-related sectors, but has a broader impact on productivity and employment in the economy. An illustrative analysis of manufacturing and services in five emerging economies—Bangladesh, Ethiopia, India, Mexico, and Vietnam—suggests that, including these induced effects, manufacturing has a significant multiplier effect on employment of more than five times, compared with three times for services. The multiplier effect for output is about 2.3 times, compared with 1.9 times for services.

A closer look at three industry sectors by way of example highlights some of the growth opportunities.

- **Textiles and apparel** could grow annually at 4 percent until 2030, double the rate since 1995.[41] Just five economies—Bangladesh, China, Indonesia, Turkey, and Vietnam—are responsible for 51 percent of global growth in exports of textiles and apparel in the past five years.

- **Electronics and electrical equipment** has grown at 5 percent per year since 1995 and could maintain that pace at least until 2030, with developing economies' share of global value added rising to 65 percent in 2030 from 52 percent in 2016.[42] This sector is particularly effective at boosting technology adoption and higher productivity. In Vietnam, for example, global players including Foxconn, Intel, Samsung, and Wintek have invested more than $15 billion since 2010 to set up production facilities and build partnerships with local parts manufacturers.[43]

- **The automotive industry** presents another opportunity, as the focus of global production moves to emerging economies. Some 46 percent of all global growth in exports since 2011 came from five emerging economies: China, the Czech Republic, Hungary, Mexico, and the Slovak Republic.

40 World Input-Output Database Socioeconomic Accounts 2016.

41 Estimates of consumption by IHS Markit. Consumption measured in total merchandise value.

42 Estimates from IHS Markit.

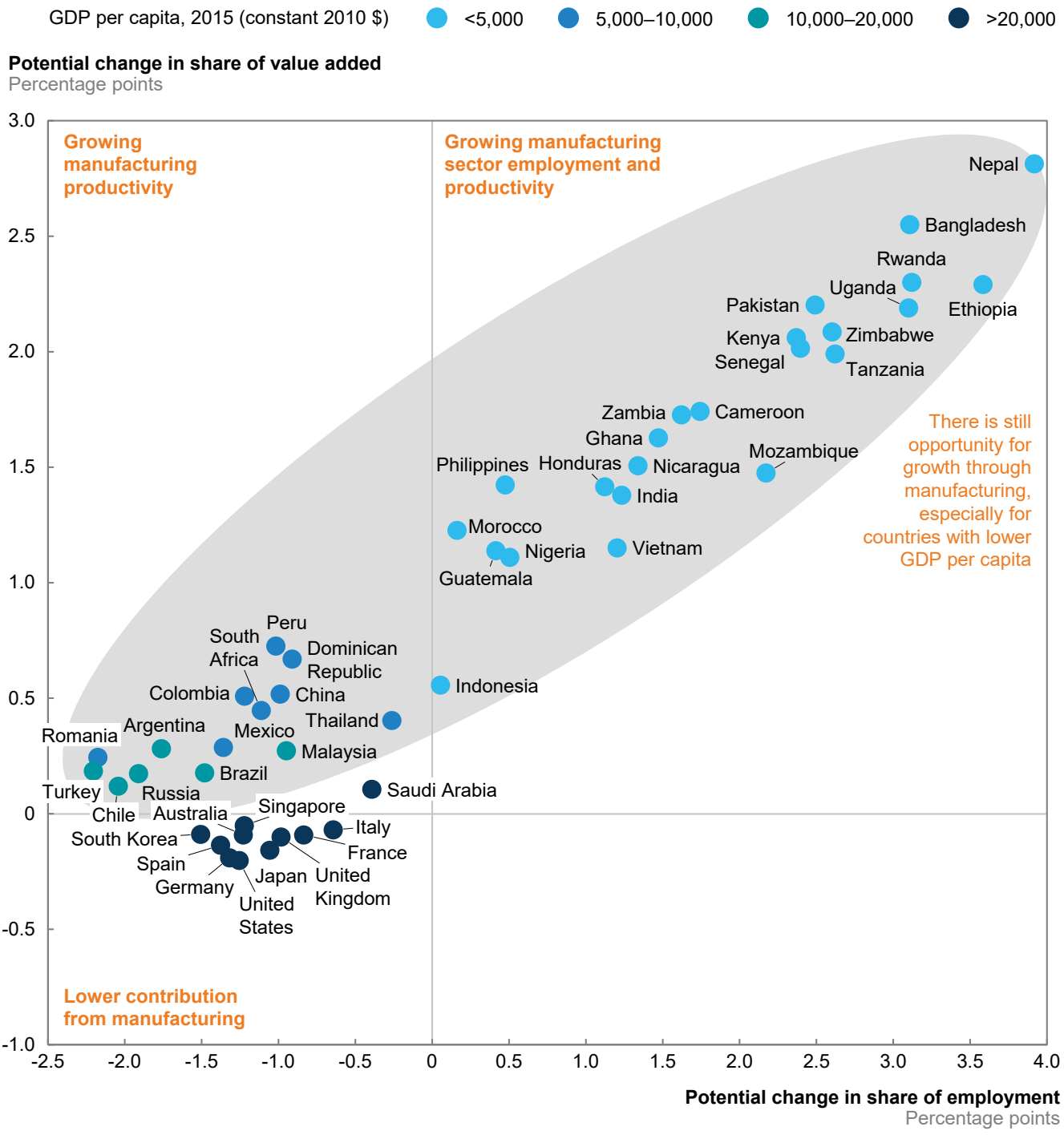
43 Based on data from Vietnam Electronic Industries Association and Aranca.

Exhibit E11

Manufacturing can remain an important source of employment and growth for low-income economies.

SIMULATION

Change in employment and value added in manufacturing in productivity boost scenario, 2015–30



SOURCE: Groningen Growth and Development Centre; McKinsey Global Growth Model; McKinsey Global Institute analysis

Services can create jobs and open productivity-growth opportunities as the relative contribution from manufacturing declines

Services account for more than 60 percent of GDP and more than half the jobs in emerging economies, but in most countries the service sector has not historically been a significant contributor to productivity growth. That is now changing, partly thanks to technology, which enables providers ranging from call-center workers to radiologists to more easily compete around the world. The share of services as a proportion of total global exports has risen from 19 percent in 1995 to 24 percent today. The share of employment in services is also becoming more relevant at an earlier stage of development.

It is particularly important for emerging economies to simultaneously increase productivity and employment in service sectors such as construction and trade because they typically absorb the greatest number of workers leaving agriculture work. In studying 19 emerging economies over the past decade, we found most countries were able to lift productivity and employment in those sectors—though the growth was not always even or automatic. Our analysis of several sectors finds new opportunities for productivity growth in services. For example, trade in business and IT services doubled to more than $2 trillion between 2005 and 2016, and global demand is expected to grow by 3 percent annually to 2025, with digital spending becoming the main driver of growth. In India, a major provider, IT and business process revenue has expanded at 9 percent annually since 2012, while employment has grown by more than 6 percent.[44] Productivity has risen 4 percent annually since 2000.[45]

In retail, we see potential productivity growth across emerging economies of more than 5 percent, with almost 60 percent of that potential achieved by shifting more sales to hyperstores, supermarkets, big-box stores, and other modern retail formats that are typically at least three times as productive as small-scale traditional stores. Online retailing is even more productive, and in countries with substantial e-commerce penetration, such as Brazil, India, and Indonesia, productivity in the retail sector has grown by more than 5 percent per year since 2000.[46] Exhibit E12 highlights the productivity opportunity for emerging economies in some sectors, both in manufacturing and in services.

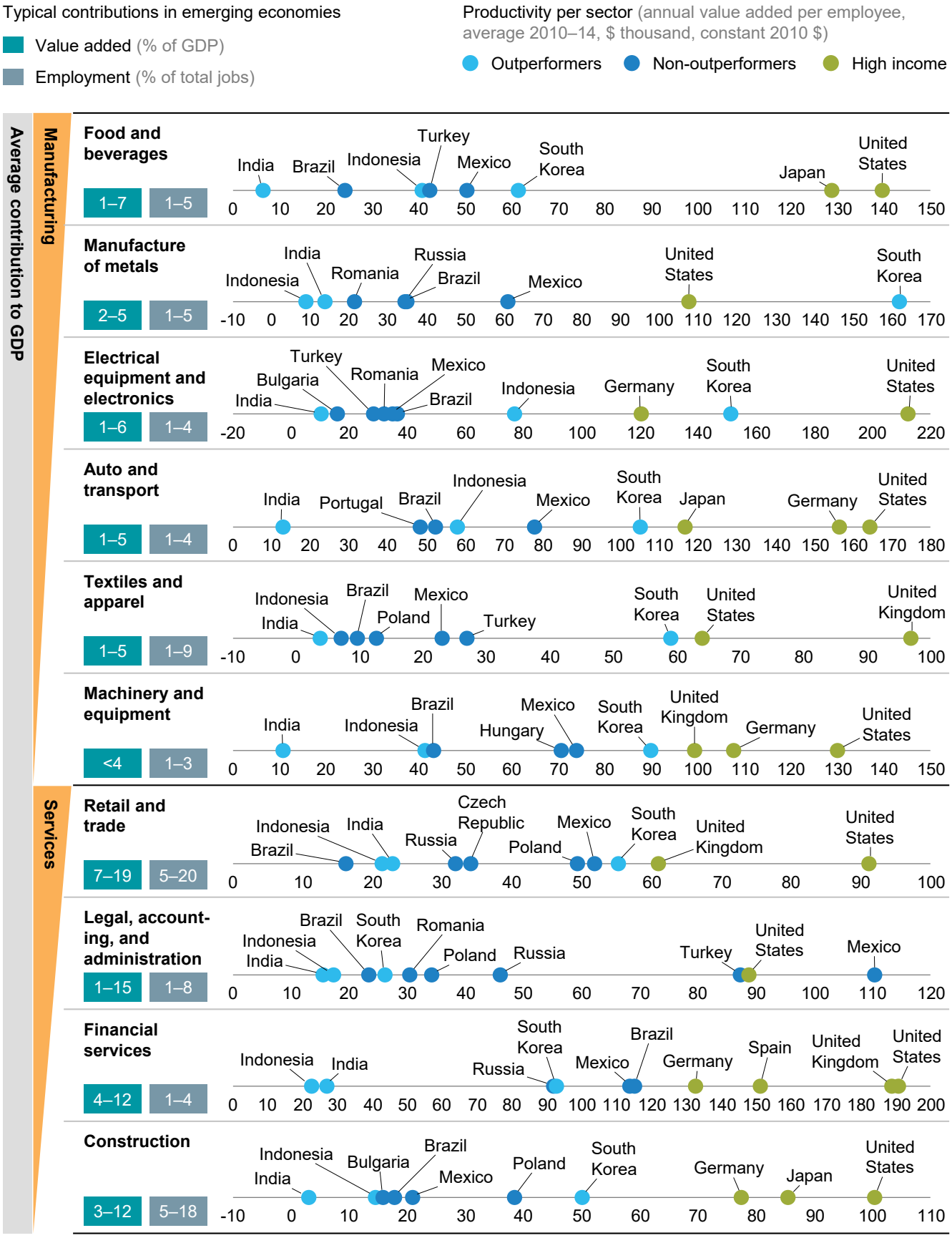
[44] *Jobs and skills: The imperative to reinvent and disrupt*, NASSCOM, May 2017; *Indian IT-BPM industry—FY 2013 performance review, FY 2014 outlook*, NASSCOM, February 2013.

[45] World Input-Output Database Socioeconomic Accounts 2016.

[46] Ibid.

Exhibit E12

Emerging economy firms have opportunities to increase productivity in manufacturing and services.


Typical contributions in emerging economies
Value added (% of GDP)
Employment (% of total jobs)
Productivity per sector (annual value added per employee, average 2010–14, $ thousand, constant 2010 $)
Outperformers
Non-outperformers
High income
Average contribution to GDP
Manufacturing
Services
Food and beverages
1–7
1–5
India Brazil Indonesia Turkey Mexico South Korea Japan United States
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150
Manufacture of metals
2–5
1–5
Indonesia India Romania Russia Brazil Mexico United States South Korea
-10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170
Electrical equipment and electronics
1–6
1–4
India Bulgaria Turkey Romania Mexico Brazil Indonesia Germany South Korea United States
-20 0 20 40 60 80 100 120 140 160 180 200 220
Auto and transport
1–5
1–4
India Portugal Brazil Indonesia Mexico South Korea Japan Germany United States
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180
Textiles and apparel
1–5
1–9
Indonesia India Brazil Poland Mexico Turkey South Korea United States United Kingdom
-10 0 10 20 30 40 50 60 70 80 90 100
Machinery and equipment
<4
1–3
India Indonesia Brazil Hungary Mexico South Korea United Kingdom Germany United States
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150
Retail and trade
7–19
5–20
Brazil Indonesia India Russia Czech Republic Poland Mexico South Korea United Kingdom United States
0 10 20 30 40 50 60 70 80 90 100
Legal, accounting, and administration
1–15
1–8
Indonesia India Brazil South Korea Romania Poland Russia Turkey United States Mexico
0 10 20 30 40 50 60 70 80 90 100 110 120
Financial services
4–12
1–4
Indonesia India Russia South Korea Mexico Brazil Germany Spain United Kingdom United States
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200
Construction
3–12
5–18
India Indonesia Bulgaria Brazil Mexico Poland South Korea Germany Japan United States
-10 0 10 20 30 40 50 60 70 80 90 100 110

NOTE: Not to scale.

SOURCE: World Input-Output Database, 2016; McKinsey Global Institute analysis

An $11 trillion boost awaits the global economy if all emerging economies match the historical productivity growth of outperformers

Productivity growth will determine the pace at which incomes—and consumption—continue to rise in developing economies. Consensus forecasts that serve as our baseline anticipate that the 53 developing economies that are either middling or underperforming may increase their productivity growth to 1.3 percent per year on average between 2015 and 2030.[47]

What would happen if these economies could match the historical productivity gains of the 18 outperformers? It would require them to lift their annual average productivity growth from the 1.4 percent rate between 2000 and 2015 to 4.1 percent, the average annual rate achieved by the outperformers. To estimate the impact, both for the emerging economies and for the global economy, we simulated this increase using a macroeconomic model.[48]

The effects are striking: for developing economies, the overall per capita GDP growth rate could rise to 4.6 percent. This could push their average per capita GDP more than 50 percent above the consensus forecasts for 2030 and lift 200 million people to the consuming class and 140 million more people out of poverty—an increase of almost two full percentage points of the global population.

How credible is such a scenario? Tripling productivity growth rates is certainly an ambitious goal, but the precedent has already been set: this is what the 11 recent outperformers achieved between 1995 and 2015 compared with the baseline period of 1980 to 1995.

The global economy would experience a bounce, growing at an average rate of 3.5 percent a year, compared with consensus forecasts of 2.8 percent. That growth could directly add $11 trillion to global GDP by 2030. About $8 trillion of that would come directly from the 53 hitherto middling and underperforming emerging economies. The remaining $3 trillion would come indirectly, as increased economic activity and income in the 53 nations affect global demand in advanced and outperforming emerging economies. The $11 trillion boost to global output amounts to roughly 10 percent of the world's economy and would be equivalent to adding another China.

GEOGRAPHIC REGIONS HAVE STRENGTHS AND WEAKNESSES IN COMMON, AND ALL HAVE POTENTIAL TO STRENGTHEN THEIR PRO-GROWTH CYCLES

We analyzed the strengths and challenges of all 71 emerging economies in our sample by using 13 indicators of economic performance and potential that highly correlate to per capita GDP growth as demonstrated by the outperformers. These indicators track performance across a range of dimensions, including elements of productivity, income, and demand that contribute to the pro-growth agenda mentioned earlier.[49] A heat map of our findings provides a snapshot of both the strengths and the challenges of the seven regions (Exhibit E13).

[47] Consensus forecasts from the Economist Intelligence Unit, IHS Economics, and Oxford Economics.

[48] We used McKinsey & Company's Global Growth Model to simulate the effects of the productivity increase.

[49] The 13 indicators are: domestic savings, foreign direct investment, market capitalization of listed domestic companies, Global Innovation Index, government effectiveness, inflation, government health expenditure, government education expenditure, household income, corporate income, infrastructure investment, exports, and connectedness to the global economy through cross-border flows of trade in goods, services, finance, people, and digital.

Exhibit E13

Our heat map analysis on 13 growth metrics highlights strong regional patterns.

Performance within emerging markets (quartile)[1] First Second Third Fourth

	▸ Regions[2]	Central Asia	East and Southeast Asia	South Asia	Central and Eastern Europe	Sub-Saharan Africa	Latin America	Middle East and North Africa
Description	**% of emerging market population**	1	36	30	7	12	10	5
	% of emerging market GDP	1	47	10	16	5	19	2
Economic performance	**Average GDP per capita** Real $ 2016	5,283	12,604	1,703	12,644	1,751	6,885	4,461
	Average GDP per capita growth CAGR, 1996–2016, %	5.5	4.4	3.7	3.1	2.5	1.9	1.6
Productivity drivers	**Domestic savings** CAGR, 1996–2016, %							
	Government effectiveness Change, 1996–2016, %							
	Market capitalization of listed domestic companies CAGR, 1996–2016, %							
	Global Innovation Index Rank change, 2013–16							
	Foreign direct investment CAGR, 1996–2016, %							
	Inflation Average, 2000–16							
	Government health expenditure CAGR, 2000–15, %							
	Government education expenditure CAGR, 1996–2016, %							
Income and demand drivers	**Household income** CAGR, 1996–2014, %							
	Corporate income CAGR, 1996–2014, %							
	Exports CAGR, 1996–2016, %							
	MGI Connectedness Index Score, 2016							
	Infrastructure investment CAGR, 2000–15, %							

1 Represents which quartile of the 71 economies the average of the archetype would fall in. For example, a green-colored square means the average of this archetype has a similar level in an indicator as top-quartile countries.

2 Central Asia: Azerbaijan, Kazakhstan, Kyrgyz Republic, Turkmenistan, and Uzbekistan. East and Southeast Asia: Cambodia, China, Hong Kong, Indonesia, South Korea, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam. South Asia: Bangladesh, India, Nepal, Pakistan, and Sri Lanka. Central and Eastern Europe: Belarus, Bulgaria, Czech Republic, Greece, Hungary, Poland, Romania, Russian Federation, Serbia, Slovak Republic, Turkey, and Ukraine. Sub-Saharan Africa: Angola, Cameroon, Côte d'Ivoire, Ethiopia, Ghana, Kenya, Mozambique, Nigeria, Rwanda, Senegal, South Africa, Tanzania, Uganda, Zambia, and Zimbabwe. Latin America: Argentina, Bolivia, Brazil, Chile, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Peru, and Venezuela. Middle East and North Africa: Algeria, Egypt, Iran, Jordan, Lebanon, and Morocco.

SOURCE: World Bank; OECD; IMF; WIPO; INSEAD; WFE; WHO; UNESCO; McKinsey Global Growth model; Global Insight; McKinsey Global Institute analysis

One insight of this analysis is that countries within geographic regions have more in common with each other than clusters defined by income level, growth archetype, or recent growth experience. Most outperformers are from Asia, for example, whereas none is from Latin America, the Middle East, or North Africa. Our analysis suggests that most countries still need to fix many elements of their economies in order to strengthen a pro-growth cycle. Even the best-performing region, East and Southeast Asia, faces challenges to sustain its growth. Some of the recent outperformers, including Azerbaijan, Belarus, and Kazakhstan, face slowing growth, partly because of the decline in resource prices in that period. Conversely, even in regions that have produced few outperformers, there are still standout countries.

- **Central Asian** economies are highly dependent on resources but have avoided the "resource curse" so far, thanks to high growth rates of savings and income, as well as improved government effectiveness. Domestic investment rates in Azerbaijan, Kazakhstan, and Turkmenistan, for example, average 32 percent of GDP in 2010–15, compared with 16 percent in Nigeria, another resource-dependent economy. While the region accounts for just 1 percent of the GDP of all 71 emerging economies in 2016, four of the five countries rank among the recent outperformers. Although growth has been slowing in Azerbaijan and Kazakhstan, momentum continues to be strong in Turkmenistan and Uzbekistan.

- **East and Southeast Asia** has been the best-performing region, lifted by the soaring economies of all seven long-term outperformers as well as four recent outperformers (Cambodia, Laos, Myanmar, and Vietnam). This is also the biggest economic region, accounting for 47 percent of the GDP of the emerging economies we examined. Sustaining growth remains challenging, nonetheless: some long-term outperformers in this region including Singapore and South Korea have experienced decelerating GDP growth in the past few years, given lagging rates of productivity improvement. More recent outperformers such as Cambodia and Vietnam are still "works in progress" and have varied shortcomings across productivity, income, and demand. Most countries in the region will need to ensure broad-based income growth and address rising income inequality.

- With mainly low- and lower middle-income countries, **South Asia** needs greater global connectedness and export diversity. For now, only India ranks among the outperformers. Exports contribute on average 18 percent of GDP in 2010–15, less than one-third the average for outperformers, and many countries in the region export mainly textiles and apparel. South Asia has significant inequality in part because a high percentage of its labor force still works in agriculture, though countries in the region are transitioning people into more productive sectors at a high rate. The region has an opportunity to improve the quality of its institutions and bureaucracy and could use its experience in information technology consulting services to boost the local digital economy and technology adoption in companies.

- **Central and Eastern Europe** accounts for 16 percent of the GDP of the 71 emerging economies, and GDP per capita, at more than $12,600, is the highest of all regions, yet only one of the 12 countries—Belarus—ranks as a recent outperformer. Capital investment in the region is low, and growth in wages and household consumption is sluggish. Countries in the region could reduce dependence on foreign direct investment by boosting domestic savings and tapping their supply of highly educated yet affordable workers to build knowledge-intensive services that may benefit from coming technological disruption. Some countries, such as Poland, have attracted companies from Western Europe and the United States, including Hewlett-Packard, which set up back-office and support operations. The region now employs nearly 300,000 people

in outsourcing and offshoring work.[50] However, total employment in Belarus, Bulgaria, Greece, Romania, and Ukraine has declined 1 percent annually or more since 2010, while remaining almost flat in Russia and the Czech Republic.[51]

- **Sub-Saharan Africa** is the region with the second-lowest average per capita GDP, at about $1,750, but several countries have made great strides in recent years. Labor productivity growth at 2.5 percent annually between 2010 and 2015—the highest rate outside Asia—and government effectiveness registered significant improvement in countries such as Rwanda and Côte d'Ivoire. For now, only one of the 15 countries—Ethiopia—ranks among the recent outperformers. In general, connectedness to other regions is poor and exports from countries in sub-Saharan Africa lack diversity. For example, more than 90 percent of goods exported from Nigeria and Angola are oil-related. Improving infrastructure and continuing to build out government effectiveness to attract foreign investment remain important opportunities for the region.

- **Latin America** accounts for almost 20 percent of the GDP of the 71 emerging economies, but it trails in all dimensions of the pro-growth agenda. All countries are in the bottom half of annual productivity growth rankings, without a single country of the 15 we analyzed breaking through into the outperformers' ranks. Stringent regulation, low savings and income growth, and fragmented rule of law are major obstacles. While the region has produced globally competitive companies—including Mexico's Grupo Alfa, Brazil's Embraer, and Argentina's Tenaris—companies can be fettered by restrictive labor laws and regulations.[52] Most countries in the region also have low savings and investment rates, and room to improve income inequality. On average, as of 2015, Latin America had the highest inequality of any region, as measured by the average Gini coefficient.[53]

- **Middle East and North Africa** countries also have no outperformers.[54] Indeed, the region on average has negative total factor productivity, limited income and demand growth, and the lowest improvement in education spending. A lack of economic diversity hobbles some countries in the region—about 95 percent of Algeria's exports of goods and more than 60 percent of Iran's are oil-based products, for example.[55] It is also a region with few large, publicly listed companies. This region was the only one where emerging economies' per capita GDP declined in recent years, falling 0.6 percent per year from 2010 to 2015, while labor productivity grew only 0.9 percent annually in the same period. Recent MGI research found that 73 percent of GDP growth in the region from 2000 to 2015 was explained by an expanding workforce, while only 27 percent was attributable to labor productivity growth.[56] The region's policy makers could improve business productivity by encouraging the adoption of technology in production, stimulating consumption, and making bureaucracies more professional.

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50 *A new dawn: Reigniting growth in Central and Eastern Europe*, McKinsey Global Institute, December 2013, on McKinsey.com.

51 From the Conference Board Total Economy Database, conference-board.org.

52 *Where will Latin America's growth come from?* McKinsey Global Institute, April 2017, on McKinsey.com.

53 The Gini coefficient measures income distribution in a country. The higher the score, the higher the levels of inequality. Data collected between 2010 and 2015.

54 Saudi Arabia and United Arab Emirates are classified by the World Bank as high-income economies and thus are not included in our analysis here.

55 *The Atlas of Economic Complexity*, Harvard University, Center for International Development, 2018, atlas.cid.harvard.edu.

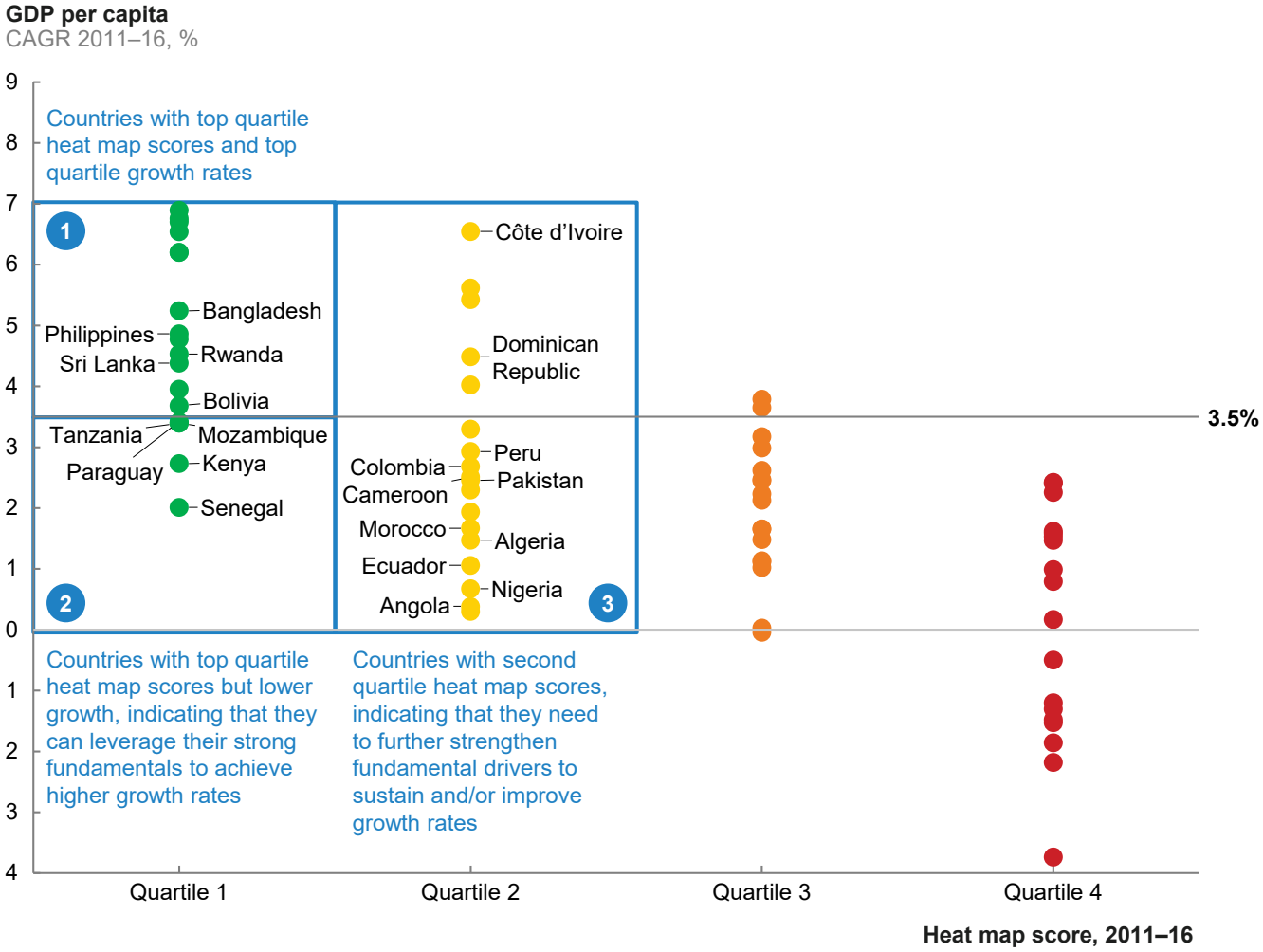
56 *Where will Latin America's growth come from?* McKinsey Global Institute, April 2017, on McKinsey.com.

Looking to the next outperformers

Across this varied global landscape, we identify individual countries that are aspiring newcomers to the list of outperformers. These are countries that are putting in place and strengthening their economic fundamentals, in accordance with the elements of our pro-growth agenda, as mapped in the heat map analysis. Some of them are already achieving GDP per capita growth that exceeded 3.5 percent in 2011 to 2016. Exhibit E14 calls out a number of these potential future outperformers, which fall into three groupings. Five countries—Bangladesh, Bolivia, the Philippines, Rwanda, and Sri Lanka—exceeded the 3.5 percent annual per capita growth rate in 2011 to 2016 and also rank in the top 25 percent of our performance index. A second cluster of countries consists of Kenya, Mozambique, Paraguay, Senegal, and Tanzania. These countries have moved into the top quartile of our pro-growth performance scores, reflecting improvement in key productivity, income, and demand drivers, but have not yet achieved consistent 3.5 percent GDP per capita growth. Two other countries achieve the 3.5 percent GDP growth benchmark, but their pro-growth performance is less exceptional, and puts them in the second quartile. They are Côte d'Ivoire and Dominican Republic.

Exhibit E14

Countries that achieved high GDP per capita growth and strong momentum on fundamental indicators since 2011 have the potential to join the next wave of outperformers.



NOTE: Heat map score is based on each country's performance across the 13 drivers of growth. Results are normalized for each indicator and summed with a weight based on the indicator's simple correlation to GDP per capita growth. Quartiles represent where the total country score falls. Overall correlation between heat map scores and GDP per capita growth is 0.8.

SOURCE: McKinsey Global Institute analysis

Developing economies can continue to be engines of global economic growth well into the future, lifting many more millions of people out of poverty, expanding the middle class, and boosting global GDP growth. To realize these potential benefits, our research suggests, will require policy makers to hew to a pro-growth agenda based on boosting productivity, income, and demand, as well as on the expansion of a vibrant private sector, characterized by highly competitive firms that cut their teeth in domestic competition before becoming global players. That combination, which has proved so successful for the outperformers examined in this report, will likely remain key elements for future development, in times of change. The rise of automation and shifting trade patterns, among other trends, present new opportunities, with potentially big rewards for those sufficiently flexible to harness them. The 18 outperformers have blazed the trail. Now it is the turn of other developing countries—and advanced economies—to learn from that experience and keep the momentum going (Exhibit 15). The global economy, and millions of people who still live in poverty, will be more prosperous as a result.

Exhibit E15

Key indicators linked to growth in emerging economies.

Performance within emerging markets (quartile)[1] First Second Third Fourth

Archetype[2]	Economy	GDP per capita Real $ 2016	Real GDP per capita[3] CAGR, 1965–2016, %	Real GDP per capita CAGR, 1996–2016, %	Domestic savings CAGR, 1996–2016, %	Government effectiveness[4] Change, 1996–2016	Market cap of listed companies CAGR, 1996–2016, %	Global Innovation Index[5] Rank change, 2013–16	Exports CAGR, 1996–2016, %	MGI Connectedness Index[6] Score, 2016
Long-term outperformers	China	6,894	7.3	8.6	10	33	10	4	14	21
	South Korea	25,459	6.2	3.5	4	20	11	1	9	14
	Singapore	52,601	5.2	2.9	5	5	7	1	7	51
	Indonesia	3,974	3.6	2.6	4	40	5	-6	4	2
	Hong Kong	36,726	4.0	2.6	2	23	10	-2	6	21
	Malaysia	11,028	3.8	2.5	3	11	0	-2	4	8
	Thailand	5,901	4.3	2.4	3	6	7	0	6	8
	Average	**20,369**	**4.9**	**3.6**	**5**	**20**	**7**	**-1**	**6**	**18**
Recent outperformers	Myanmar	1,420	4.2	8.9	6	17				
	Azerbaijan	5,859	2.5	8.2	19	48	0	7	14	
	Turkmenistan	6,987	3.2	6.1	16	1				
	Cambodia	1,078	5.5	5.8	16	2		6	16	1
	Belarus	6,219	2.7	5.6	8	-6		-3	6	2
	Laos	1,643	4.3	5.4	13	13			6	1
	India	1,861	3.5	5.3	8	9	7	0	0	7
	Kazakhstan	10,570	2.3	5.2	9	58	13	3	3	4
	Vietnam	1,770	4.8	5.1	8	31	9	9	14	8
	Uzbekistan	1,961	2.6	5.1	7	47	8		6	
	Ethiopia	511	2.3	4.8	4	44	11	5		
	Average	**3,626**	**3.4**	**6.0**	**10**	**24**	**7**	**4**	**8**	**4**
Very recent accelerators	Sri Lanka	3,759	3.7	4.6	8	-1	9	2	4	1
	Mozambique	515	2.8	4.6	13	-30		18	14	1
	Rwanda	739	2.0	4.5	14	93		13	14	1
	Bangladesh	1,030	1.9	4.2	8	0	9	1	12	1
	Poland	15,049	3.6	4.0	5	0	13	2	8	8
	Dominican Rep.	6,909	3.4	3.9	5	-1		0	4	1
	Peru	6,089	1.3	3.3	6	-8	7	-1	6	1
	Ghana	1,708	0.9	3.2	3	-3	-1	-8	6	1
	Philippines	2,753	1.7	2.9	5	14	4	9	5	2
Consistent growers	Slovak Rep.	19,238	3.9	3.7	4	15	4	0	9	
	Bulgaria	7,929	2.5	3.7	6	14	35	0	3	2
	Romania	10,081	2.5	3.4	5	5	14	-4	9	3
	Tanzania	867	2.2	3.1	14	8	5	7	9	
	Turkey	14,071	2.7	3.0	6	5	5	12	6	3
	Serbia	5,852	3.0	3.0	6	81	-1	-9	10	2
	Chile	15,020	2.6	2.9	3	-8	4	-4	4	2
	Uganda	662	2.3	2.8	8	7		-8	9	1
	Morocco	3,196	2.8	2.6	4	0	0	11	6	2

1 Represents which quartile of the 71 economies the growth rate of each indicator falls in, except if it is in the top decile in terms of level (eg, for government effectiveness, Singapore is green as it has the highest score among all countries).
2 A note on archetypes: Long-term outperformers achieved more than 3.5% GDP per capita CAGR over a 50-year period and outpaced US growth for more than 36 years. Recent outperformers achieved more than 5% CAGR over a 20-year period. Middlers achieved CAGR of 0.95–3.5% over a 50-year period and include very recent accelerators (more than 3.6% CAGR between 2006–16), consistent growers, and volatile growers (exhibited high coefficient of variation in at least one ten-year interval). Underperformers had CAGR of less than 0.95% over a 50-year period.
3 Starting point is 1965 or earliest year available; simple averages have been taken across indicators.
4 The perceived quality of public services, civil service, and policy formulation and implementation, as measured by the World Bank's Government Effectiveness Score.
5 An annual ranking of national innovation in 80 fields, such as politics, education, infrastructure, and business sophistication, by Cornell University, INSEAD, and WIPO. Rank change reflects movement within emerging markets only.
6 McKinsey Global Institute's ranking of 117 countries based on total flows of goods, services, finance, people, and data and communication, adjusting for country size.

SOURCE: World Bank; OECD; IMF; WIPO; INSEAD; WFE; WHO; UNESCO; McKinsey Global Growth model; Global Insight; McKinsey Global Institute analysis

Exhibit E15 (continued)

Key indicators linked to growth in emerging economies (continued).

Performance within emerging markets (quartile)[1] First Second Third Fourth

Archetype[2]	Economy	GDP per capita Real $ 2016	Real GDP per capita[3] CAGR, 1965–2016, %	Real GDP per capita CAGR, 1996–2016, %	Domestic savings CAGR, 1996–2016, %	Government effectiveness[4] Change, 1996–2016	Market cap of listed companies CAGR, 1996–2016, %	Global Innovation Index[5] Rank change, 2013–16	Exports CAGR, 1996–2016, %	MGI Connectedness Index[6] Score, 2016
Consistent growers (continued)	Hungary	14,840	2.1	2.6	3	-12	1	-2	10	8
	Nepal	682	1.8	2.5	-3	-20		1	-1	
	Egypt	2,724	2.5	2.4	0	-9	-8	-4	5	2
	Czech Rep.	21,707	1.7	2.2	3	14	1	-1	8	8
	Colombia	7,526	2.3	2.2	4	24	3	-3	4	1
	Pakistan	1,182	2.2	1.8	1	-1	7	4	3	1
	Ecuador	5,210	1.5	1.5	5	2	-3	-14	3	1
	Portugal	22,347	2.6	0.9	1	-1	3	1	4	3
Volatile growers	Nigeria	2,458	1.0	3.3	6	-10	-2	-2	8	1
	Angola	3,607	1.1	3.2	-3	-11			11	2
	Algeria	4,846	1.5	1.9	4	39		11	1	
	Iran	5,758	0.9	1.7	3	21	6	19	2	
	Paraguay	3,928	2.4	1.5	2	9	0	2	3	1
	Honduras	2,138	1.1	1.4	-2	1		0	3	1
	Kenya	1,143	1.5	1.4	3	10	5	10	4	1
	Guatemala	3,100	1.3	1.3	1	-7		-9	3	1
	Mexico	9,707	1.5	1.2	2	-3	4	1	5	9
	Argentina	10,149	1.0	1.2	1	0	1	-19	3	2
	Brazil	10,826	2.1	1.2	3	-1	3	-2	6	3
	Jordan	3,258	1.7	1.0	-3	7	-5	-16	3	4
	Greece	22,736	1.7	0.5	-1	-19	-6	3	5	3
Middlers Average		**7,060**	**2.1**	**2.6**	**4**	**6**	**4**	**1**	**6**	**3**
Underperformers	Russian Fed.	11,099	0.4	3.4	4	12	-1	7	5	
	Kyrgyz Rep.	1,038	0.4	3.1	0	-24			2	
	Zambia	1,622	-0.1	2.8	1	34	9	-10	18	1
	Nicaragua	1,946	-0.1	2.6	6	-7		-6	9	1
	Ukraine	2,906	-1.1	2.6	1	5	-3	8	-1	4
	Bolivia	2,458	1.0	2.4	5	-17		-13	4	1
	El Salvador	3,803	0.9	1.6		23		-13	5	1
	Senegal	1,093	0.1	1.5	7	-21		-10	5	1
	Cameroon	1,357	0.8	1.4	3	23		-3	2	1
	South Africa	7,504	0.6	1.3	3	-21	6	0	3	3
	Venezuela	14,462	0.1	0.8	-4	-38	-6	-11	-4	1
	Côte d'Ivoire	1,563	0.2	0.7	4	-18		12		2
	Lebanon	6,984	0.6	0.0		-17	5	2	7	3
	Zimbabwe	909	0.0	-1.8		-39	-1		-2	
	Average	**4,196**	**0.3**	**1.6**	**3**	**-8**	**1**	**-3**	**4**	**2**

1 Represents which quartile of the 71 economies the growth rate of each indicator falls in, except if it is in the top decile in terms of level (eg, for government effectiveness, Singapore is green as it has the highest score among all countries).
2 A note on archetypes: Long-term outperformers achieved more than 3.5% GDP per capita CAGR over a 50-year period and outpaced US growth for more than 36 years. Recent outperformers achieved more than 5% CAGR over a 20-year period. Middlers achieved CAGR of 0.95–3.5% over a 50-year period and include very recent accelerators (more than 3.6% CAGR between 2006–16), consistent growers, and volatile growers (exhibited high coefficient of variation in at least one ten-year interval). Underperformers had CAGR of less than 0.95% over a 50-year period.
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SOURCE: World Bank; OECD; IMF; WIPO; INSEAD; WFE; WHO; UNESCO; McKinsey Global Growth model; Global Insight; McKinsey Global Institute analysis

Lunchtime in dining hall at an electronics manufacturing complex, China.
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1. EIGHTEEN DEVELOPING ECONOMIES THAT OUTPERFORMED THEIR PEERS

Developing economies are a major driver of global economic growth and rising prosperity and will continue to be so for another generation. They accounted for 64 percent of the world's GDP growth and 58 percent of new consumption between 2000 and 2015.[57] Yet the economic performance of these developing economies is anything but homogeneous. While some countries have truly "emerged," achieving powerful and sustained long-term growth that has buoyed the global economy and enabled these leaders to narrow the gap with high-income advanced economies, others have remained submerged, growing less strongly and steadily than the leaders, or even floundering. In this chapter, we look at the long-term track record of developing economies to identify the outperformers and their role in lifting more than 1 billion people out of extreme poverty in less than three decades. Recent economic turbulence in several emerging economies has tested some investors' confidence. In this report, we take a long view of developing economies, looking back at their real performance over decades and looking forward to where they could be in 2030.

18 DEVELOPING ECONOMIES OUT OF 71 WE STUDIED OUTPERFORMED THEIR PEERS AND GLOBAL BENCHMARKS OVER THE LONG AND SHORTER TERM

We analyzed the per capita GDP growth of 71 developing economies over 50 years, starting in 1965. Our analysis focuses on per capita GDP growth because it indicates improvements in material living standards. We selected the 71 from the World Bank's June 2017 list of 218 economies, from which we excluded 99 economies with fewer than five million people and 28 economies for which there was insufficient data.[58] That left 71 developing economies and 20 advanced economies.[59] One in four of the developing economies—18 out of the 71—outperformed their peers by meeting growth criteria, defined below, which made them significantly more prosperous. Together, these countries represented 22 percent of global GDP and 46 percent of the world's population in 2016.

Seven of the 18 economies achieved or exceeded real annual per capita GDP growth of 3.5 percent for the entire 50-year period. This threshold is the average growth rate required by low- and lower middle-income economies to achieve upper middle-income status over a 50-year period, as defined by the World Bank.[60] That growth rate is 1.6 percentage points above the per capita GDP growth of the United States in the same period. The seven are China, Hong Kong, Indonesia, Malaysia, Singapore, South Korea, and Thailand.

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57 A consensus of forecasts from the Economist Intelligence Unit, IHS Economics, and Oxford Economics; see MGI's report *Global growth: Can productivity save the day in an aging world?* January 2015.

58 Economies excluded in the second filtering are Afghanistan, Benin, Burkina Faso, Burundi, Chad, Cuba, Democratic Republic of Congo, Guinea, Haiti, Iraq, Libya, Madagascar, Malawi, Mali, Niger, North Korea, Papua New Guinea, Republic of Congo, Sierra Leone, Somalia, South Sudan, Sudan, Syria, Tajikistan, Togo, Tunisia, and Yemen; Taiwan also was excluded.

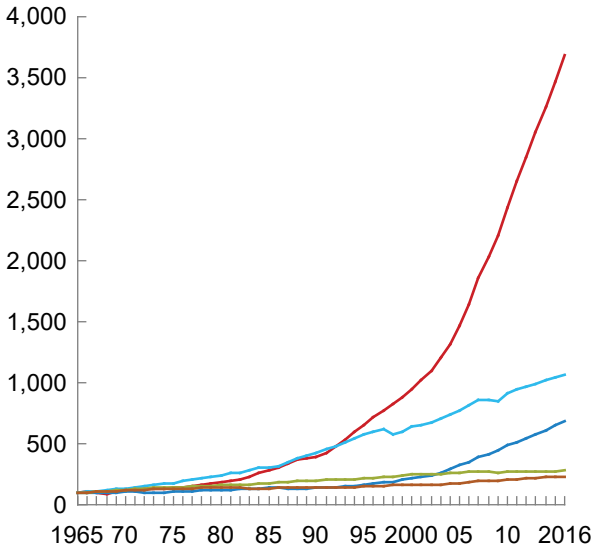
59 The 20 advanced economies are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Israel, Italy, Japan, Netherlands, Norway, Saudi Arabia, Spain, Sweden, Switzerland, the United Arab Emirates, the United Kingdom, and the United States.

60 The World Bank assigns the world's economies into four income groups: high, upper middle, lower middle, and low. We set the threshold growth rate for long-term outperformers at 3.5 percent, which is the annual average growth rate required over a 50-year period for low-income and lower middle-income economies to achieve upper middle-income status. For low-income economies, the threshold growth rate is 4.3 percent, and for lower middle-income economies it is 2.8 percent. *The Data Blog*, "New country classifications by income level: 2016-2017," blog entry by World Bank Data Team, July 1, 2016, blogs.worldbank.org.

While the economic transformation stories of these Asian countries, especially China, are mostly well known and have been studied by many (including us), our analysis also found a second group of 11 more recent, less heralded, and more geographically diverse outperformers.[61] These countries achieved average annual per capita GDP growth of at least 5 percent over the 20 years between 1996 and 2016. That was enough to raise low- and lower middle-income economies by one income bracket as defined by the World Bank, and was 3.5 percentage points above the per capita GDP growth of the United States in the same period.[62] The 11 are Azerbaijan, Belarus, Cambodia, Ethiopia, India, Kazakhstan, Laos, Myanmar, Turkmenistan, Uzbekistan, and Vietnam (Exhibit 1).

Exhibit 1

GDP per capita growth among outperforming economies has far exceeded that of other emerging economies.



Archetype	Compound annual growth rate, 1965–2016 %	GDP, 2016[2] % share	Population, 2016[2] % share
China	7.3	13	19
Long-term outperformers (excluding China)	4.7	5	6
Recent outperformers	3.9	4	22
High income	2.0	59	13
Non-outperformers	1.7	16	31

1 Calculated using GDP per capita (constant 2010 $) and based on simple averages.
2 Excluded economies account for 3% of global GDP and 9% of population.
NOTE: Figures may not sum to 100% because of rounding.

SOURCE: World Bank; McKinsey Global Institute analysis

These 18 countries not only showed exceptional average economic performance but also demonstrated consistency by exceeding the benchmark growth rate in at least three-fourths of the 50 and 20 years, respectively. Some other countries including Brazil and Nigeria, which have also experienced strong periods of growth, did not make the cut because their growth has been more volatile, with sharp downturns following booms.

[61] For our recent research on China's transformation, see *Digital China: Powering the economy to global competitiveness*, McKinsey Global Institute, December 2017, on McKinsey.com; *China's role in the next phase of globalization*, McKinsey Global Institute, April 2017, on McKinsey.com; and *China's choice: Capturing the $5 trillion productivity opportunity*, McKinsey Global Institute, June 2016, on McKinsey.com.

[62] For recent outperformers, we set the threshold growth rate at 5.0 percent. Under the World Bank's income classification, low- and lower middle-income countries must attain average annual growth of 5.4 percent to move up one income level over a 20-year period. Growth of 3.7 percent is needed for the move from low to lower-middle income, while 7.1 percent growth is needed to rise from lower-middle to upper-middle income. Ibid. *The Data Blog,* "New country classifications by income level: 2016-2017," blog entry by World Bank Data Team, July 1, 2016, blogs.worldbank.org.

While there is a preponderance of Asian economies among the outperformers, the group as a whole spans different income levels, sizes, factor endowments, and regions—with the exception of Latin America. Economies such as Hong Kong, Singapore, and South Korea have sustained high growth rates even at high income levels, despite hypotheses that developing economies are fated to plateau shy of advanced-economy development levels (see Box 1, "The middle-income trap: myth or reality?"). Some outperformers, such as Cambodia and Laos, are small, while others, China and India, are the world's most populous countries. Ethiopia is landlocked; Indonesia is an island nation. Some are rich in natural resources (Malaysia and Azerbaijan); others, including Hong Kong, are not.

Box 1: The middle-income trap: myth or reality?

Some recent literature on the economics of development posits that middle-income countries face particular challenges in sustaining rapid growth rates.[1] The logic behind this idea is that countries that relied for their growth on low wages and the adoption of technology from higher-income nations may lose their competitive advantage as they reach middle-income status. Not yet able to innovate as effectively as more advanced countries and no longer able to compete on cost, they become stuck in a middle-income trap.

We find little evidence that stagnation occurs only at the middle-income level or that the transition from middle to high income is particularly challenging. In fact, growth is challenging at all levels of development: most countries have not changed their per capita GDP relative to that of the United States over the past 50 years.[2] In other words, countries can get "stuck" at all income levels. For example, the list of middling performers and underperformers includes countries from all income levels—from those with less than $2,500 in per capita GDP such as Senegal and Honduras to more developed countries such as the Czech Republic, where per capita GDP is around $20,000.[3] Some academic research has shown there is no evidence for a middle-income trap, as income level is a poor predictor of growth slowdowns at any stage of development.[4]

On the flip side, there is evidence that some countries have maintained accelerated growth at all stages of economic development. In Malaysia, for instance, GDP has grown 5 percent annually since 2000, even after per capita income exceeded $10,000. South Korea, the most outstanding example, has increased its per capita GDP from $15,000 to $25,000 since 2000, with an average annual GDP growth rate of 4 percent (peaking near 10 percent at the beginning of the period).

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1 See, for example, Shekhar Aiyar et al., *Growth slowdowns and the middle-income trap*, IMF working paper WP/13/71, March 2013, i mf.org; Keun Lee, *Schumpeterian Analysis of Economic Catch-up: Knowledge, Path-creation, and the Middle-income Trap*, Cambridge, UK: Cambridge University Press, 2013; Pierre-Richard Agénor and Otaviano Canuto, *Middle-income growth traps*, World Bank Policy Research working paper number 6210, September 2012; Fernando Gabriel Im and David Rosenblatt, *Middle-income traps: A conceptual and empirical survey*, World Bank Policy Research working paper WPS6594, September 2013; David Bulman, Maya Eden, and Ha Nguyen, "Transitioning from low-income growth to high-income growth: Is there a middle-income trap?" *Journal of the Asia Pacific Economy*, January 2017, Volume 22, Number 1, pp. 5–28.

2 Jonathan Anderson, *Hard thinking on China's traps, reforms, and the plenum*, Emerging Markets Advisors Group, November 4, 2013.

3 World Bank World Development Indicators.

4 Lant Pritchett and Lawrence Summers, "Growth slowdowns: Middle-income trap vs regression to the mean," Voxeu.org, December 11, 2014.

THE REMAINING 53 DEVELOPING ECONOMIES HAVE VARIED TRAJECTORIES; SOME OUTPERFORMED BUT NOT CONSISTENTLY, WHILE OTHERS FELL BEHIND

Most of the developing economies we studied were middling performers that grew as fast as or slightly faster than the United States. However, they did not grow by a large enough margin or for long enough to pull themselves higher up the World Bank's ladder of national affluence rankings or materially expand their "consuming class"—that is, people with incomes high enough to become significant consumers of goods and services.[63] Either the difference between per capita GDP growth rate of these countries and that of the United States from 1965 to 2016 was less than 1.5 percentage points or these countries did not exceed that threshold in at least three-fourths of the years in that period (Exhibit 2).

These 39 middling performers are a diverse group, spanning all regions and income levels, from poor countries in sub-Saharan Africa to high middle-income economies such as Chile and Poland. Together, they represented 26 percent of global population and 13 percent of global GDP in 2016. Some of these countries, including Bangladesh, Ghana, Peru, the Philippines, Rwanda, and Sri Lanka, have recently been growing quickly but need to demonstrate that they can maintain that pace.

Others, such as Bulgaria, Colombia, Ecuador, Egypt, Hungary, Morocco, Nepal, Pakistan, Portugal, Romania, Tanzania, Turkey, and Uganda, have grown consistently, but not by a margin large enough to close the gap with the United States.[64]

A third subgroup of middling performers, including Algeria, Angola, Argentina, Brazil, Iran, Kenya, Mexico, and Nigeria, have experienced volatile boom-and-bust growth that has not lifted them up the World Bank's ladder of affluence. Combined, these middling performers represented 26 percent of global population (the largest group) by 2016.

Other countries underperformed, with their per capita GDP declining relative to the United States from 1965 to 2016, growing at a compound annual growth rate of less than 1 percent. This group of 14 economies includes two of what by then were five "BRICS" countries—Russia and South Africa, which joined the group in late 2010 (see Box 2, "How have the BRICs performed?"). Others are Bolivia, Cameroon, Côte d'Ivoire, El Salvador, the Kyrgyz Republic, Lebanon, Nicaragua, Senegal, South Africa, Ukraine, Venezuela, Zambia, and Zimbabwe. This is the smallest cohort, making up 6 percent of global population and 3 percent of global GDP in 2016.

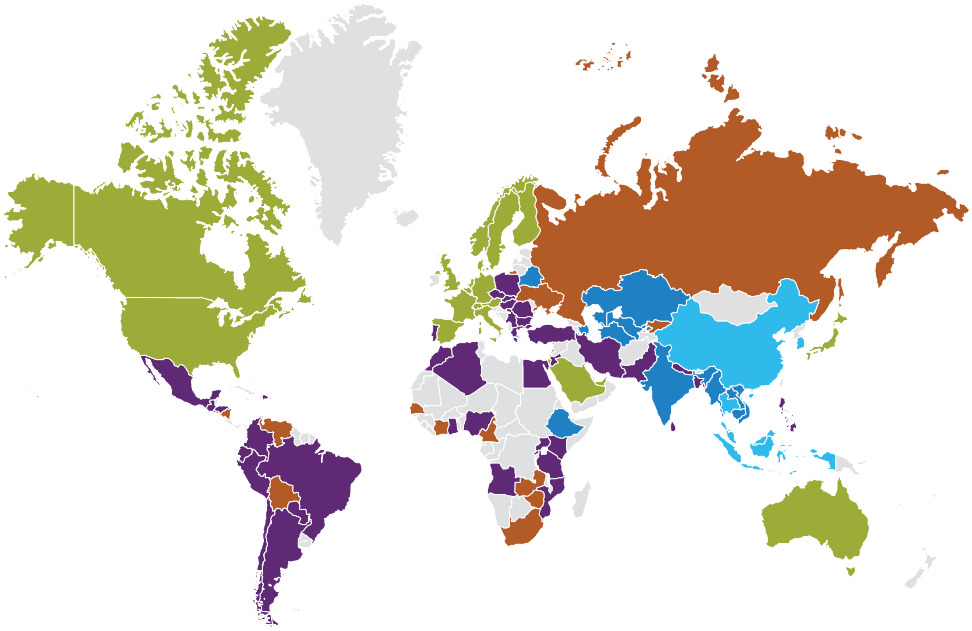
[63] We define consuming class or consumers as individuals with an annual income of more than $3,600, or $10 per day at purchasing power parity, using constant 2005 PPP dollars. See *Urban world: Cities and the rise of the consuming class,* McKinsey Global Institute, June 2012, on McKinsey.com.

[64] We include Greece, Portugal, and South Korea because these economies were not high income per the World Bank classification in 1987 but achieved high-income status in 1994, 1996, and 1997, respectively. We also include Hong Kong and Singapore, even though both were classified as high-income countries by the World Bank in 1987.

Exhibit 2

Eighteen emerging economies sustained long-term GDP per capita growth, outperforming their peers.

N = 91 countries[1]



High income[2]

- Australia
- Austria
- Belgium
- Canada
- Denmark
- Finland
- France
- Germany
- Israel
- Italy
- Japan
- Netherlands
- Norway
- Saudi Arabia
- Spain
- Sweden
- Switzerland
- United Arab Emirates
- United Kingdom
- United States

Long-term outperformers[3]
Outpaced US growth consistently from 1965–2016

- China
- Hong Kong
- Indonesia
- Malaysia
- Singapore
- South Korea
- Thailand

Recent outperformers[4]
Outpaced US growth consistently from 1996–2016

- Azerbaijan
- Belarus
- Cambodia
- Ethiopia
- India
- Kazakhstan
- Laos
- Myanmar
- Turkmenistan
- Uzbekistan
- Vietnam

Middlers[5]
No relative change: No or inconsistent improvement relative to US from 1965–2016

Very recent accelerators

- Bangladesh
- Dominican Republic
- Ghana
- Mozambique
- Peru
- Philippines
- Poland
- Rwanda
- Sri Lanka

Consistent growers

- Bulgaria
- Chile
- Colombia
- Czech Republic
- Ecuador
- Egypt
- Hungary
- Morocco
- Nepal
- Pakistan
- Portugal
- Romania
- Serbia
- Slovak Republic
- Tanzania
- Turkey
- Uganda

Volatile growers

- Algeria
- Angola
- Argentina
- Brazil
- Greece
- Guatemala
- Honduras
- Iran
- Jordan
- Kenya
- Mexico
- Nigeria
- Paraguay

Underperformers[6]
Fallen behind: Slower relative growth than US from 1965–2016

- Bolivia
- Cameroon
- Côte d'Ivoire
- El Salvador
- Kyrgyz Republic
- Lebanon
- Nicaragua
- Russia
- Senegal
- South Africa
- Ukraine
- Venezuela
- Zambia
- Zimbabwe

1 We excluded economies with populations of less than 5 million in 2016 and those with limited data availability.
2 For the purposes of this report, we have defined high income economies as those that had gross national income per capita of $6,000 or more in 1987, when the World Bank first started classifying countries by income bands. The two exceptions are Hong Kong and Singapore, which are classified as outperformers in our report due to the high rate of growth during the period analyzed.
3 The long-term outperformer threshold of 3.5% compound annual growth rate of GDP per capita is the average growth rate required by low (4.3%) and lower-middle-income (2.8%) economies to achieve upper middle-income status over a 50-year period.
4 The recent outperformer threshold of 5% compound annual growth rate is derived from the average growth rate of 5.4% required by low (3.7%) and lower middle (7.1%) income to move up one income level over a 20-year period (from low to lower middle or lower middle to upper middle).
5 The middler threshold was between 0.95% and 3.5% compound annual growth rate over the period 1965–2016, or where economies did not meet the criteria for other cohorts. Very recent accelerators' GDP per capita growth outpaced long-term outperformers' (>3.6% compound annual growth rate) from 2006–16. Consistent growers' GDP per capita grew consistently (albeit slowly) from 1965–2016 with a low coefficient of variation. Volatile growers' GDP per capita regressed and/or exhibited a high coefficient of variation over at least one 10-year period from 1965–2016. Coefficient of variation defined as standard deviation of year-on-year growth divided by simple average year-on-year growth 1965–2016.
6 The underperformer threshold of <0.95% compound annual growth rate of GDP per capita over the period 1965–2016 is equivalent to <50% of the rate achieved by the United States over the same period.
NOTE: The maps displayed on the MGI website and in MGI reports are for reference only. The boundaries, colors, denominations, and any other information shown on these maps do not imply, on the part of McKinsey, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries.

SOURCE: World Bank; McKinsey Global Institute analysis

Box 2. How have the BRICs performed?

In 2001, Jim O'Neill, then head of global economic research at Goldman Sachs, popularized the term "BRIC" in reference to the growth prospects of Brazil, Russia, India, and China. Investors and others quickly adopted the acronym as shorthand for the world's most promising emerging markets.[1] At the time, the BRIC countries together accounted for roughly 20 percent of global economic growth.[2]

However, the BRICs turned out to be less monolithic or solid than they were often perceived to be, and they are far from interchangeable. In 2004, China contributed 13 percent of global growth in GDP, while Brazil, India, and Russia combined contributed 9 percent, with similar growth rates. Then came the 2008 global financial crisis followed by a slump in commodity prices. While exports in general are an important feature of outperforming economies, according to our analysis, the commodity price slump disproportionately hurt oil exporter Russia and food exporter Brazil, while helping China and India by cutting their energy costs. By 2013, China's share of global economic growth had risen to 29 percent, while Brazil, India, and Russia's combined share had shrunk to just 7 percent.[3]

China is an exceptional long-term outperformer. Of the three others, India is the only one that has shown a track record for growth, and we classify it as a recent outperformer. India has benefited from being a net importer of crude and other commodities whose prices have fallen. It also has the advantage of being less susceptible to market volatility, as it is less dependent on exports for its growth. For example, the share of exports of goods and services in GDP in 2014 was 23.2 percent in India, compared with 30 percent in Russia.[4]

Meanwhile, Brazil has been a middling performer, highly volatile, with annual average GDP per capita growth of 2.3 percent, while Russia has underperformed. Its 50-year growth record is just 0.5 percent.

Having entered the vernacular, BRIC remains a widely used acronym to describe emerging economies. Variants have sprung up over the years. For example, some analysts, including McKinsey colleagues, have proposed that investors shift their focus to the potential for significant continued expansion of "ICASA" markets: India, China, Africa, and Southeast Asia—including outperformers identified in this report.[5]

Our analysis of outperforming economies, through its focus on per capita GDP as a primary metric, is only one of numerous lenses through which emerging economies can be viewed, and we acknowledge its limitations. Even countries or regions with growth that is lower than that of outperformers can contribute considerably to global GDP if they are relatively large. Latin American countries, for example, do not feature among the outperformers, but given their large population, even less robust growth is meaningful to the global economy.

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1 Jim O'Neill, *Building better global economic BRICs*, Goldman Sachs global economics paper number 66, November 2001. The group was later expanded, with the addition of South Africa in 2010.

2 Gordon Orr, *What could happen in China in 2014?* McKinsey.com, January 2014.

3 Ibid.

4 Mark Esposito, Amit Kapoor, and Deepti Mathur, "What is the state of the BRICS economies?" World Economic Forum Beyond GDP series, April 2016, weforum.org.

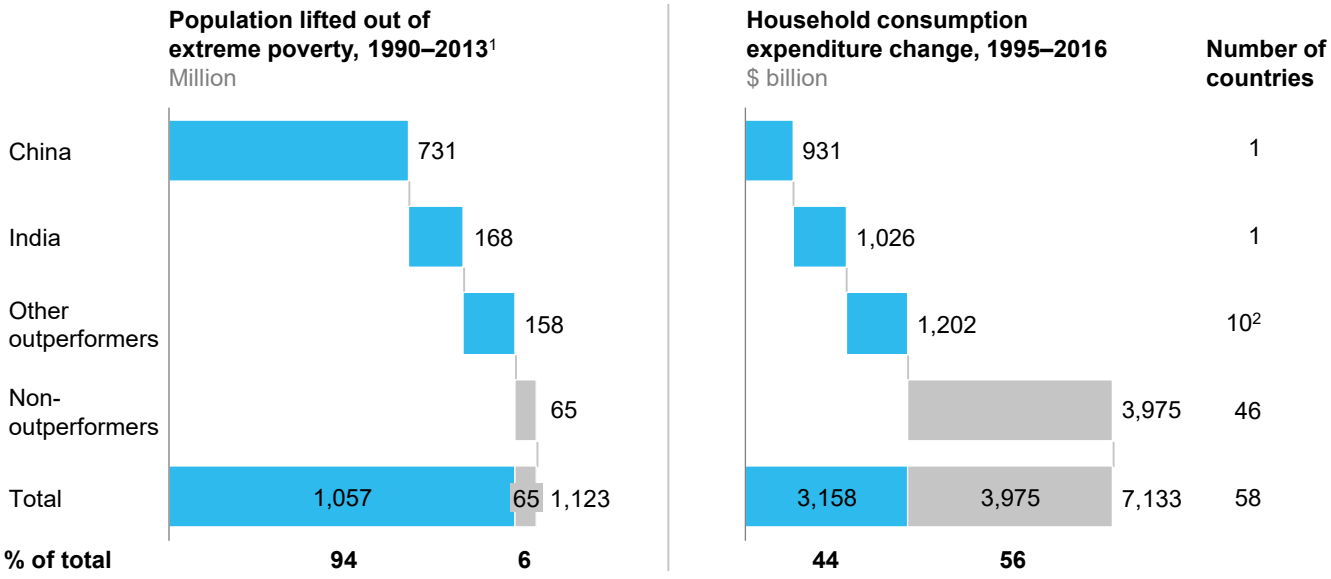
5 Ezra Greenberg, Martin Hirt, and Sven Smit, "The global forces inspiring a new narrative of progress," *McKinsey Quarterly*, April 2017.

OUTPERFORMING ECONOMIES BENEFITED THEIR RESIDENTS

Outperformers have been the engine for lifting one billion people out of extreme poverty, which the World Bank defines as living on less than $1.90 a day. They have thus been instrumental in helping meet the key poverty-reduction goal of the United Nations' Sustainable Development Goals. From 1990 to 2013, the latest year for which comprehensive data are available, the number of people mired in extreme poverty declined by more than half, to 766 million from 1.84 billion, even as the world added 1.9 billion people. The outperforming economies accounted for almost 95 percent of the total number lifted out of extreme poverty. China and India led the way, raising some 900 million people out of poverty between them (a decline in extreme poverty of about 730 million people in China and 170 million in India). Indonesia also elevated over 80 million people out of extreme poverty (Exhibit 3).[65] In percentage terms, the reduction is also striking: less than 11 percent of the world's population now lives in extreme poverty, down from 35 percent in 1990.[66]

Exhibit 3

Outperformers lifted approximately 1.1 billion people out of extreme poverty and increased household consumption by about $3.2 trillion.



1 Defined as individuals earning less than $1.90 per day (PPP $ 2005), N = 63 economies.
2 Data unavailable for outperformers: Azerbaijan, Ethiopia, Laos, Myanmar, Turkmenistan, and Uzbekistan; non-outperformers: Angola, Côte d'Ivoire, Ghana, Nepal, Venezuela, Zambia, and Zimbabwe.
NOTE: Figures may not sum to 100% because of rounding.

SOURCE: PovcalNet, World Bank; UNDP; McKinsey Global Institute analysis

At the same time, growing numbers of residents of these countries joined the consuming class. In India, for example, the number of consuming class households has risen tenfold in 20 years, rising from 3.4 million in 1995 to more than 35 million in 2016. These consumers, highly urbanized, have become a powerful motor for global economic growth; we estimate that the consuming class in 440 cities globally could account for close to half of world GDP growth by 2025.[67] More than 60 percent of the growth in the world's middle-income households over the coming 15 years will likely occur in emerging markets, with these countries alone adding 380 million households—or more—to the consuming class.[68]

65 *Atlas of Sustainable Development Goals: No poverty*, World Bank, 2018, worldbank.org.
66 *Poverty and shared prosperity 2016: Taking on inequality*, World Bank, 2016.
67 *Urban world: Cities and the rise of the consuming class*, McKinsey Global Institute, June 2012, on McKinsey.com.
68 World Bank data from countries including India do not adjust for underreporting of income. The estimated number of consuming class households could thus be considerably higher.

The large-scale improvement in living standards was due to several factors, including higher wages and equitable distribution of the value created by increased labor productivity. Real wages and benefits in long-term outperformers rose at a compound annual growth rate of 5.3 percent between 1980 and 2014, led by China's 8.6 percent rate. By comparison, high-income economies averaged annual wage growth of only 1.3 percent, while middling developing economies averaged 1.7 percent and underperformers 0.2 percent. Real wage growth in recent outperformers rose 6.0 percent per year from 1995 to 2014, a rate that is only slightly below labor productivity growth of 6.1 percent.

In the outperforming emerging economies, this income growth was not concentrated among a select minority. In fact, outperformers have been the most successful group—better than high-income economies—at delivering inclusive growth through their large and growing middle classes. Over the past 15 years, outperformers have driven 58 percent of emerging-market consuming class growth, in the process elevating roughly 336 million households to the consuming class.[69] They also accounted for almost half of the growth in household spending of all emerging economies in the past 20 years.

China led the way, as its economic boom elevated 26 percent of its households into the consuming class in the past decade. Greater prosperity has been accompanied by better health and education. In India, for example, the number of citizens living in extreme poverty fell by 25 percent between 1990 and 2013, while life expectancy rose by more than a decade. In China, the number of those living in extreme poverty fell by 78 percent, while average life expectancy at birth rose by seven years and the expected length of education increased by almost five years.

Greater prosperity has been accompanied by better health and education. In India, life expectancy rose by more than a decade between 1990 and 2013, even as the number of citizens living in extreme poverty dropped by 25 percent. In China, average life expectancy rose by seven years and the expected length of education increased by 4.7 years. In all long-term outperformers outside of China, the average life expectancy at birth rose by 6.4 years and students spent an additional 4.1 years in school.

Despite progress on many human development indicators, emerging economies see significant gaps between men and women in access to healthcare, education, financial services and technology. These gender gaps in society are linked to gender gaps in the workforce. Prior MGI research has shown that narrowing gender gaps can give a significant boost to GDP. By our estimates, the 58 emerging economies we studied, out of 95 countries globally, would achieve incremental GDP of $6.1 billion, or 12 percent of their business-as-usual GDP, by 2025 if they narrowed gender gaps in labor force participation, hours worked, and sector mix of employment.[70]

For this research, we did not explicitly include gender equality-related metrics in our economic performance indicators, as female participation in the labor force is heavily influenced by non-economic factors such as cultural barriers and household preferences about managing unpaid care work. In many emerging economies, therefore, we see a nuanced relationship between economic factors, like household income and urbanization, and progress on gender equality. Female participation rates tend to be high in low-income countries where necessity drives women into work, but they tend to dip in middle-income ones, and rise again in higher-income countries when women have more tertiary education and can find better paying jobs. Similarly, female participation rates in rural areas are

[69] We define household income brackets using PPP constant 2012 prices as the following: poverty as less than $5,000 per year, low income as between $5,000 and $20,000, middle class as between $20,000 and 70,000, and affluent class as $70,000 and above. "Consuming class" refers to middle and affluent classes.

[70] *The power of parity: How advancing women's equality can add $12 trillion to global growth*, McKinsey Global Institute, September 2015.

generally higher than in urban areas, because employment in cities is more regulated and less flexible, and childcare is more expensive.

In line with these findings, the low-income, largely rural economies of sub-Saharan Africa have an average female-to-male labor participation ratio of about 84 percent, while urbanized, middle income countries of Latin America have a lower female-to-male participation ratio of 67 percent. Within the outperformers, Southeast Asia has female-to-male labor participation ratios of 87 to 93 percent in Cambodia, Myanmar and Vietnam, and 61 to 64 percent in Indonesia and Malaysia. India has the lowest female-to-male participation ratio in the outperformer cohort, at 34 percent. China's ratio, at 81 percent, is relatively high, but its share of women in leadership is much lower than in the Philippines or Singapore.[71]

•••

Eighteen developing countries have blazed a trail in terms of economic growth over the past half century, powered in part by the growth of vibrant large companies. The impact on global growth—and on the reduction in global poverty—has been striking. What accounts for this success? What role does policy play, and what role business? In the following chapter, we examine the macroeconomic and other policies that helped the 18 outperformers foster growth and allowed large companies to thrive. The lessons of their experience are relevant to all economies, regardless of their size or state of development.

[71] See *The power of parity: Advancing women's equality in Asia Pacific,* McKinsey Global Institute, June 2018, and *The power of parity: How advancing women's equality can add $12 trillion to global growth,* McKinsey Global Institute, September 2015.

Office workers in Singapore financial district.
© Jon Hicks/Photolibrary/Getty Images

2. POLICIES THAT ENABLED EXCEPTIONAL GROWTH

What made the outperformers outperform? The field of development economics is rich with academic literature that examines the forces of growth in emerging economies and especially the role of government. Some of the latest work has influenced our thinking (see Box 3, "Evolving thinking about the role of government in development"). This report focuses on two essential and intertwining elements. One is the role of policy—specifically, macroeconomic policies that increased savings and ensured economic stability, government efforts to improve public-sector efficiency which in turn boosted investment, and competition policies that enabled the corporate players to grow and thrive. The other is the role played by large firms in propelling growth. These companies are becoming ultracompetitive on the global scene because of a regulatory framework and business ecosystem at home that have spurred competitiveness—and, with it, domestic economic growth.

In this chapter, we look at policies that helped create higher productivity in the outperforming economies. This led to higher income growth, which fueled higher demand and in turn further boosted productivity. This pro-growth agenda starts with greater productivity, which is made possible by accumulating capital and improving technology. The fruits of increased productivity are then distributed throughout the economy in the form of more jobs and higher wages for workers, which lift more people into the middle class. Companies see increased profits, and governments collect higher revenue through taxes. Wage growth translates into more household disposable income and consumption, which generates demand for more goods as well as higher savings, which enables more investment (Exhibit 4).

Exhibit 4

A pro-growth agenda of productivity, income, and demand propelled the outperforming economies.

Increasing productivity by
- Promoting competition and market efficiency
- Investing in infrastructure and mechanization
- Increasing total factor productivity by improving technology, innovation, and processes
- Boosting scale of production and investing in talent

Translating productivity into **strong and inclusive income growth** through
- Boosting household incomes and middle class formation through higher wages
- Increasing corporate profit growth broadly distributed among companies

Boosting **demand** for production by
- Driving higher domestic consumption and investment from income and credit growth
- Supporting investment by mobilizing domestic savings and capital accumulation
- Tapping into regional and global demand by enhancing global connectivity

SOURCE: McKinsey Global Institute analysis

Box 3. Evolving thinking about the role of government in development

Finding the right set of policies or the appropriate degree of intervention from policy makers for rapid economic development has been elusive. Historically, there have been two main schools of thought: one that preferred heavy government-led industrial policies and another that believed in liberalized markets.[1]

The former believed that development was not an automatic process, especially in emerging markets fraught with market failures; in this scenario, governments should actively guide and support sectors and firms to promote growth through measures such as trade protection and subsidies. The latter belief, often dubbed the Washington Consensus, maintained that the potential for government failures such as rent capture or inappropriate selection was much larger than for market failures and that governments should let markets run their course to unlock growth, through measures such as liberalizing trade markets and privatization.

Both schools have faced criticism in recent decades for their inability to create more success cases and for relatively inflexible prescriptions that do not consider contextual and temporal conditions. Since the turn of the century, economists including Dani Rodrik, Ricardo Hausmann, Justin Y. Lin, Ann Harrison, and Ken Warwick have posited a more nuanced view of economic growth, and some new insights have emerged.

Complementary role of government and markets. The new wave of development economics accepts that policy makers have a critical role to help private-sector players overcome various market failures such as coordination and information failures. The process of discovering new and promising opportunities is a costly one that does not always pay off even when successful; other players can easily come in and appropriate the first mover's hard-won knowledge. Sometimes, a potentially promising opportunity cannot be realized because of a systemwide failure. For example, when a necessary ecosystem (such as a network of suppliers or an industry-wide standard) does not yet exist, the risks may be too great unless the entire system moves together.[2] The public sector can create policies and programs that can aid in the discovery process or compensate first movers, or help coordinate multiple parties to work together. These interventions do not have to come at the expense of competition or market forces; rather, they complement markets and help overcome market failures.

Context-specific policies and programs. Another major departure is the increased emphasis on context-specific interventions. Every country has a different set of factor endowments and "binding constraints" at any given time: policies that work well for some countries could wreak havoc on others. Lin argues that countries need to upgrade their policy interventions based on the constantly evolving sources of comparative advantage, while models such as the Growth Diagnostics Framework proposed by Ricardo Hausmann, Dani Rodrik, and Andrés Velasco propose a way to identify and address the specific "binding constraints" that hinder growth.[3] Policy interventions cannot be designed or evaluated in isolation. They interact with each other, as well as with other activities in the economy. By understanding the time- and context-specific endowments and binding constraints of their systems, policy makers can design a set of policies and programs that maximize the potential of their economies.

Importance of the "how," not just the "what." Economists including Daron Acemoglu and James Robinson have focused on the role of institutions.[4] Development institutions are increasingly focused on "capacity building" as well as monitoring and evaluation to ensure better implementation and accountability. Policies and programs must be implemented well, not just designed. Policy makers need to continue to invest in improving institutions and their capabilities to ensure that their policies and programs can have the intended impact. The increasing popularity of on-site evaluation of efficiency of programs including randomized control trials, and the implementation of frameworks for rapid adaptation in policy making, are examples of this new paradigm.[5]

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1 This study is an analysis of the long-term economic growth patterns of emerging economies. It does not explore broader characteristics of economies, such as political processes, types of government, or the functioning of civil society.

2 Theodore Moran, *The role of industrial policy as a development tool: New evidence from the globalization of trade-and-investment*, Center for Global Development, policy paper number 071, December 22, 2015, cgdev.org; Ken Warwick, *Beyond industrial policy: Emerging issues and new trends*, OECD Science, Technology and Industry Policy Papers, number 2, April 5, 2013.

3 Justin Yifu Lin, *New structural economics: A framework for rethinking development*, World Bank, 2012; Ricardo Hausmann, Dani Rodrik, and Andrés Velasco, *Growth diagnostics*, Harvard University, Center for International Development, 2005.

4 Daron Acemoglu and James A. Robinson, *Why Nations Fail: The Origins of Power, Prosperity, and Poverty,* New York, NY: Crown Publishing, 2012.

5 See Matt Andrews, Lant Pritchett, and Michael Woolcock, *Escaping capability traps through problem-driven iterative adaptation*, Center for Global Development, working paper number 299, June 22, 2012, cgdev.org.

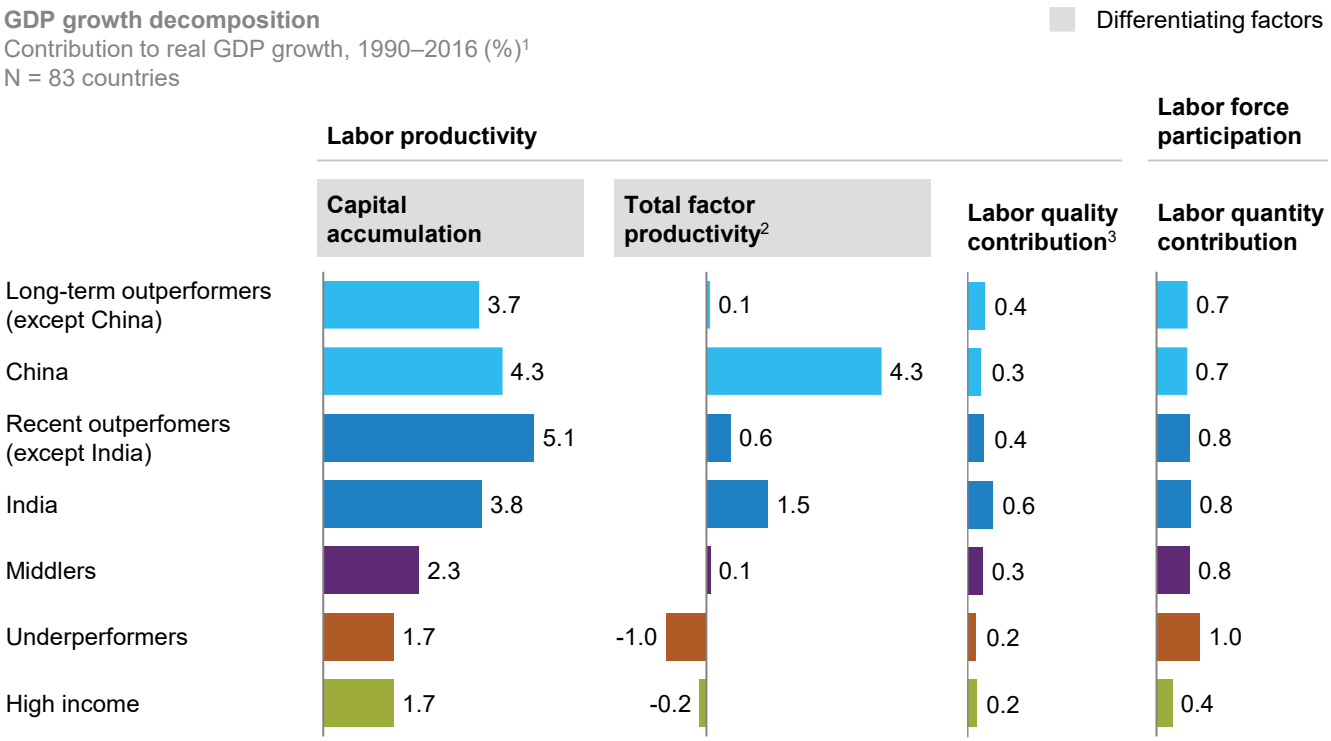
MACRO POLICIES AIMED AT SUPPORTING CAPITAL ACCUMULATION AND ENSURING STABILITY HELPED CREATE A PRO-GROWTH AGENDA

A common misperception about emerging economies is that an abundant labor supply has been the primary driving force behind rapid economic growth. Our analysis, based on disaggregating the drivers of per capita GDP growth, shows that it is not the quantity of labor that differentiates outperforming countries from their peers, but rather how productively labor is used. In decomposing GDP growth, we find that capital accumulation and total factor productivity have been particularly important in enabling high GDP per capita growth among the 18 outperforming developing countries (Exhibit 5).

Exhibit 5

Capital accumulation and total factor productivity have been major drivers of economic growth for outperforming economies.

GDP growth decomposition
Contribution to real GDP growth, 1990–2016 (%)[1]
N = 83 countries



1 Simple average across economies within cohorts and across years within countries. 1995–2016 for recent outperformers.
2 Long-term outperformers' low rate of total factor productivity growth was caused, in part, by the 1997 Asian financial crisis. Further, capital accumulation and total factor productivity were likely lower for long-term outperformers over this period as the growth accelerations in these economies commenced prior to 1990. For example, from 1965 to 1990, South Korea's average growth of output attributable to total factor productivity is estimated to be 2.39%, while capital's contribution was 4.27% compared to total output growth averaging 8.78% per year (Nirvikar, Singh, and Hung Trieu, 1996).
3 Labor quality contribution data are constructed using data on employment and compensation by educational attainment. These data are collected from various sources, including Eurostat, World Input-Output Database and various country-specific KLEMS (capital, labor, energy, material and services) databases.

SOURCE: Economics Analytics Platform; World Bank; The Conference Board Total Economy Database; McKinsey Global Institute analysis

In this section, we examine the macroeconomic policies these countries put in place to support capital accumulation, along with their ability to manage stability in sometimes volatile global economic conditions. Both of these elements were crucial to the creation and maintenance of the pro-growth agenda described above, which in turn enabled the emergence of large firms.

We observed that the specific policies and programs that brought about the macroeconomic conditions conducive to sustained growth vary considerably from country to country, and it is not our intention to provide an exhaustive list. But examples abound. Exhibit 6 highlights 40 types of policies and programs that have been employed by many outperforming economies, as they relate to the three phases of the pro-growth agenda.

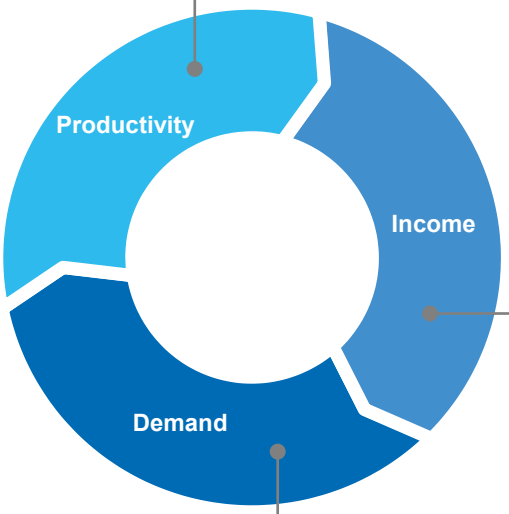
Exhibit 6

Outperforming economies used a variety of policies and programs to promote and sustain growth.

Increased investment and capital accumulation
- Targeted incentives for investment
- Investment in public goods to crowd in public investment
- Special Economic Zones or other clusters
- Investment attraction capabilities
- Forced/incentivized savings

Scale of and competition between firms
- Pro-competitive regulation; open licensing policies
- Minimize preferential subsidies
- Antitrust regulation and enforcement
- Remove regulatory barriers and disincentives to scaling
- Access to appropriate financing options

Enhanced innovation and technological adoption
- Direct government investment in R&D
- Incentives/enablers for private-sector R&D
- Innovation clusters, tech parks
- Incentivize for "first movers"
- Educational exchange
- Structures/agreements for tech transfer



Efficient and inclusive labor market
- Labor market flexibility (including job sharing/alternative types of employment)
- Labor market mobility
- Education and skills training
- Promote higher labor participation among under-represented groups

Targeted welfare strategies
- Urban development; affordable housing
- Better distribution of benefits
- Facilitate labor migration

Effective government revenue collection
- Simplification of tax codes; elimination of loopholes
- Digitalization/improvement of tax payment process
- Increased taxpayer registration
- Reduction of delinquency through data and analytics

Access to export/domestic markets
- Regional and bilateral trade agreements
- Improved logistics infrastructure
- Establish trade promotion offices
- EXIM development finance institutions
- Remove regulatory barriers to exports
- Standardize internal/local regulations

Efficient and inclusive financial sector
- Institutions to reduce risk and introduce stability
- Improve financial sector efficiency, competition
- Enhance access to formal banking

Foundational enablers

Macroeconomic stability
- Sound fiscal and monetary policies that minimize the effects of volatility
- Establish market confidence for consumers, entrepreneurs, and investors

Improved institutional capability
- Continued improvement on quality of law, politics, justice, corruption, etc
- Improve quality of bureaucracy

SOURCE: McKinsey Global Institute analysis

Long-term outperformers such as China and South Korea implemented policies and programs promoting investments and exports. However, they also pushed initiatives in enabling areas such as strengthening financial institutions, boosting welfare programs, simplifying and improving tax administration, and building bureaucratic capabilities. For its part, India pushed to bolster production through measures including the elimination of licenses for capital investment, and opening service sectors such as telecommunications and insurance to private and foreign participation. It subsequently expanded welfare programs, simplified its tax code, and instituted digital identification and payments to simultaneously improve the accessibility and efficiency of financial and government services. While we separate the policies and programs into components of the pro-growth agenda, they are, in reality, dynamically interconnected. For example, Singapore's public housing strategy can be characterized as a program to boost citizen welfare, but it had cascading effects, stimulating investment in new construction and demand.

Three shared features stand out across countries: macro policies aimed at supporting capital accumulation, income growth, and economic stability; competition policies that created an impetus for productivity growth; and a focus on improving the caliber of the public sector. These measures allowed outperformer governments to build credibility with stakeholders including their own citizens, domestic businesses, and foreign governments and institutions, and helped build the capacity for continued adaptation and improvement to sustain growth over time.

Policy to support capital accumulation via increased savings

Capital accumulation has been a hallmark of the success of outperforming developing economies. By our estimates, it contributes an average of 3.7 percentage points to long-term outperformers' economic growth each year and 5.1 percentage points to recent outperformers' growth (excluding China and India). That is considerably higher than the average annual contribution of capital accumulation to the GDP growth of middling performer countries, where it accounts for 2.3 percentage points, and of underperforming countries in our classification, where its contribution is just 1.7 percentage points.

A key differentiator between the outperforming countries and their peers was that outperformers accumulated capital primarily through higher levels of domestic savings, as seen through a comparison of savings rates—gross savings as a percentage of GDP—and investment rates, as measured by gross fixed capital formation as a percentage of GDP. Some savings were mandatory, required by government-run self-funded pension savings schemes, but the rest was the result of a culture of thrift. This is important because, as the MIT economist Robert Solow concluded half a century ago, high domestic savings are a key determinant of growth and capital formation, and reduce a country's reliance on more volatile foreign capital inflows.[72]

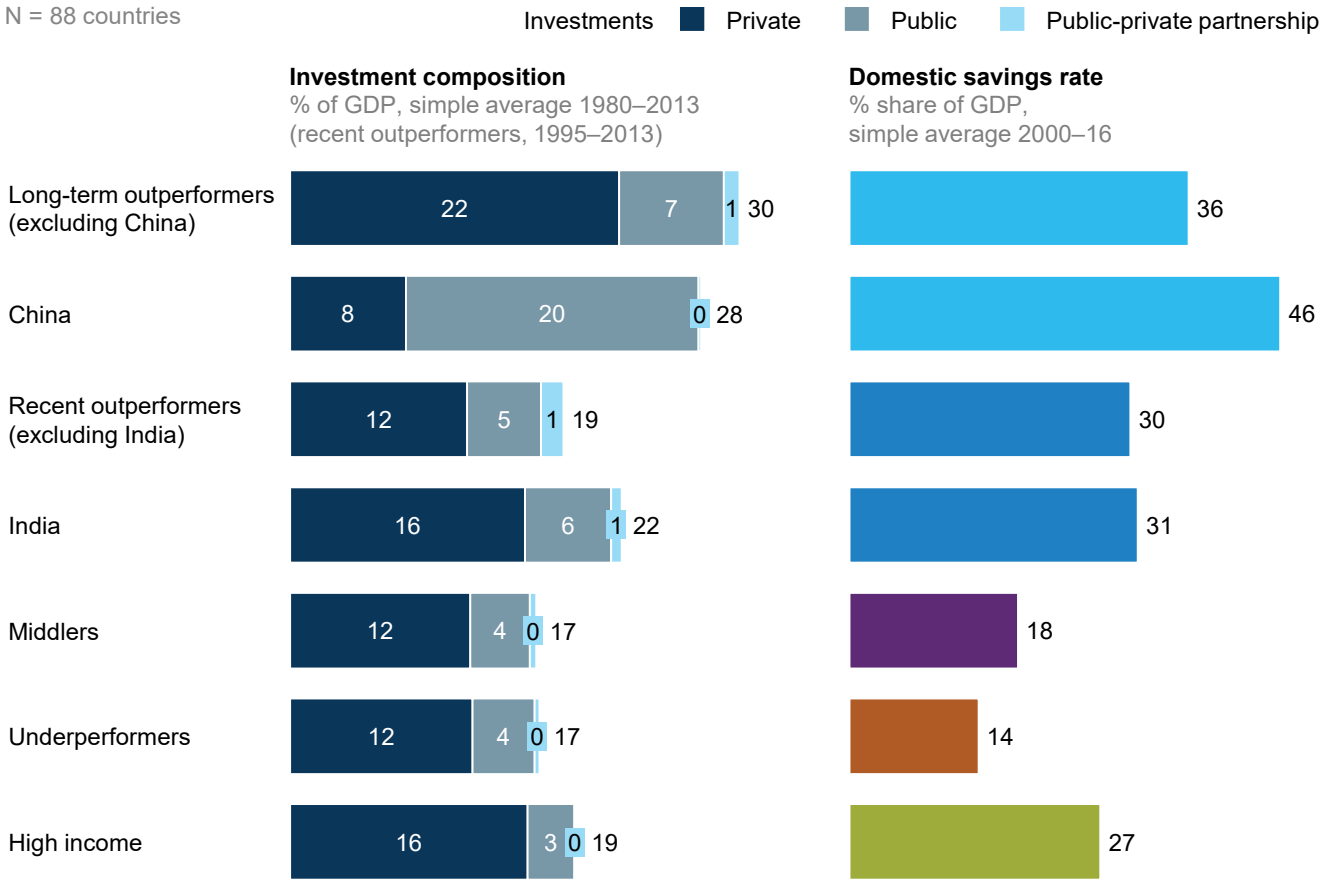
Government also supported the development of relatively strong financial institutions, which not only encouraged household savings but also financed the private sector and enabled investment in production capacity, industrial upgrades, and infrastructure. In contrast, many middling and underperforming economies have lower absolute savings rates or rely on informal institutions.

[72] Robert M. Solow, "A contribution to the theory of economic growth," *Quarterly Journal of Economics*, February 1956, Volume 70, Number 1, pp. 65–94; for additional details on volatility of capital inflows see Rakesh Mohan and Muneesh Kapur, *Liberalisation and regulation of capital flows: Lessons for emerging market economies*, Stanford Center for International Development working paper number 399, October 2009.

A high rate of savings correlates with robust investment. On average, long-term outperformers invest 30 percent of GDP and recent outperformers 19 percent, compared with 17 percent for middling and underperformer economies (Exhibit 7).

Exhibit 7

Higher domestic savings have supported higher overall investment rates.



NOTE: Figures may not sum to 100% because of rounding.

SOURCE: International Monetary Fund Investment and Capital Stock; McKinsey Global Institute analysis

Our research also found that growth was agnostic about the source of capital, whether it came from the public sector, private sector, or public-private partnerships; the level of investment and the purpose for which it was deployed were more important. In general, private-sector investment made up the larger share, though state investment in China and South Korea was significant and was used to create high-quality infrastructure and establish local suppliers for critical raw materials, such as steel for cars and ships in South Korea, or to establish local utilities. Public investment also went directly into some industries and firms through performance-based grants and loans, exemplified by large subsidies to chaebols in South Korea, and through equity, as in the case of the Chinese banking system, which includes the four largest banks in the world.[73]

[73] JahanZaib Mehmood and Saqib Chaudhry, "The world's 100 largest banks," S&P Global Market Intelligence, April 6, 2018.

Rising wages and profits increase domestic demand, while a focus on exports and connectedness taps global demand

Increased investment and the higher productivity that accompanied it led to rising corporate incomes and wages in outperformer economies. This ensured sustained domestic demand and helped focus on tapping global demand. According to the World Bank, global consumption grew at an average annual pace of 2.6 percent, from $35.9 trillion in 2000 to $52.6 trillion in 2015.

Real wages and benefits in the seven countries that rank as the long-term outperformers rose at a compound annual growth rate of 4.6 percent between 1980 and 2014, led by China's 8.6 percent average rise. Real wages and benefits in the more recent outperforming countries grew by 6 percent per year between 1995 and 2014, a rate that is only slightly below labor productivity growth (6.1 percent). In contrast, real wages and benefits in other advanced and emerging economies increased only 1.3 to 2.3 percent per year.

This income growth was not concentrated among a select minority. In fact, outperformers have been the most successful group at delivering inclusive growth through their large and growing middle classes, a trend that tends to prolong the pro-growth agenda.

In addition to increasing domestic demand by lifting a greater share of the population into the middle class, outperforming economies have also benefited from their ability to tap into global demand growth through export markets, giving them greater economies of scale.[74] This higher export orientation is reflected in MGI's Connectedness Index, which assesses the extent of countries' engagement with the global economy through inflows and outflows of goods, services, finance, people, and data.[75]

In 1980, outperformers accounted for 7 percent or less of global inflows and outflows across goods, services, and finance. By 2016, they had increased their share to 19 percent or more. The greatest increase came from goods trades. Outperformer economies captured almost 30 percent of global share by 2016—of which China accounted for 13 percentage points—compared with 1 percent in 1980 (Exhibit 8). Indeed, seven of the 18 outperformers rank in the top 30 countries globally for connectedness, including Singapore in second place, China in ninth, South Korea 15th, Malaysia 20th, Thailand 21st, Vietnam 26th, and India 30th.

Outperformers' growth in services and financial flows was also remarkable. They increased their share of the total by 18 and 17 percentage points, respectively. Of outperformers' total 24 percent share in services flows in 2016, China captured eight percentage points. For its part, India captured 4 percent of global service flows, a larger slice of the global pie than its share in goods and finance. India is focusing on building out its digital infrastructure to further increase its share of trade in services, which currently represent 24 percent of India's total global exports, up from 19 percent in 1995.[76]

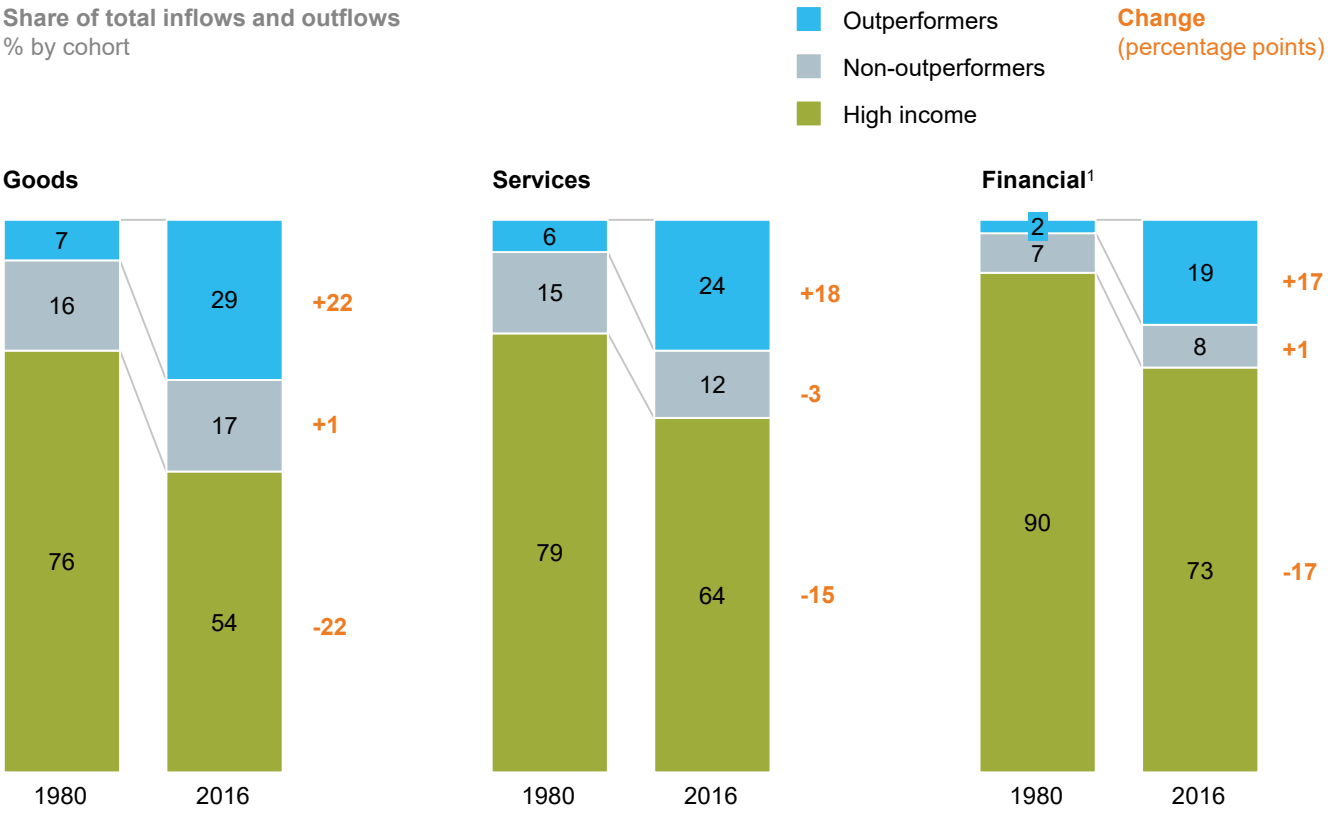
[74] Jonathan Anderson, *How to think about emerging markets (2018 edition)*, Emerging Advisors Group, April 24, 2018.

[75] MGI's Connectedness Index offers a comprehensive look at how countries participate in inflows and outflows of goods, services, finance, people, and data. The index takes into account the size of each flow for a country relative to its own GDP or population (flow intensity) as well as its share of each total global flow. *Digital globalization: The new era of global flows*, McKinsey Global Institute, March 2016, on McKinsey.com.

[76] Ibid.

Exhibit 8

Outperformer economies gained share in global goods, services, and financial inflows and outflows.



1 Financial flows include foreign direct investment, portfolio investment (equity, debt), other financial flows (loans, reserves, remittances), and financial stock.
NOTE: Figures may not sum to 100% because of rounding.

SOURCE: World Bank; MGI Global Connectedness Index; McKinsey Global Institute analysis

Ability to manage global volatility to achieve macroeconomic stability

Global economic volatility has given rise to growing concerns in recent years as the world has become increasingly interconnected. The "contagion effect" observed during the 1997 Asian financial crisis and the spread of the global financial crisis in 2008 were sobering lessons on how shocks and disruptions in one part of the world can spread to other economies.

In reality, various indicators of volatility paint different pictures at the global level. For example, inflation and exchange-rate volatility have declined globally, most significantly in emerging economies, although three countries have experienced hyperinflation over the past 10 years: North Korea from 2009 to 2011, Zimbabwe from 2007 to 2008, and Venezuela currently.[77] Market volatility seems to have increased in recent decades, but mostly driven by commodities, during a period when interest rates have remained low. That period may be drawing to a close, and higher rates could again raise volatility. Meanwhile, political volatility appears to be on the rise globally, with the World Bank estimating that the likelihood of instability or politically motivated violence has increased marginally over the past two decades.[78]

[77] The Hanke-Krus world hyperinflation table, 2013, amended 2017.
[78] World Bank Worldwide Governance Indicators, 2017.

In this mixed picture of global volatility, outperforming developing economies have shown their ability to weather shocks and maintain macroeconomic stability. Due to their relatively well-diversified economic structures, most outperformers have been less exposed to the ups and downs of global commodities markets. Over the past three decades, for example, energy, mining, and other resource-extraction activity made up a very low share of total value-added growth—as little as 3 percent—for many of the outperformers we studied.[79] Long-term outperformers, like high-income economies, also experienced lower levels of exchange-rate volatility. However, recent outperformers saw volatility levels similar to those of middling performers and underperformers. Stock market volatility has been broadly similar across all developing economies, however they performed.

One of the characteristics of the 18 outperforming economies is their resilience in recovering from regional and global crises. Even countries that were hit hard by the Asian financial crisis of 1997, such as Indonesia, Malaysia, South Korea, and Thailand, returned to positive per capita GDP growth within a year or two. During the 2008 global financial crisis, the per capita growth rates of long-term outperformers increased on average, even as GDP declined in advanced economies and other emerging economies. In contrast, middling and underperforming economies and regions, such as some Latin American countries and Russia, were laid low by an external debt shock, currency fluctuations, or commodity slumps, and their recoveries were slower, marked by prolonged periods of fiscal instability and high inflation.

In periods of financial market volatility, outperformers have demonstrated the benefit of quick policy action to address macro-imbalances. In 2013, when speculation that central banks were poised to unwind quantitative easing led to the so-called taper tantrum in financial markets in emerging economies—particularly in Brazil, India, Indonesia, South Africa, and Turkey—several countries, including India and Indonesia, implemented monetary, fiscal, and exchange-rate stabilization measures that provided resilience to market pressure. A common strategy was for central bankers in many developing economies to inject liquidity into the system to ease downward pressure on bonds and other assets. Brazil went a step further, announcing daily auctions of foreign exchange swaps and pledging $55 billion to protect its currency.[80]

Debt levels still cause concern, however. Some believe that rapidly expanding emerging markets may have pursued growth through unsustainable increases in leverage and see this as a threat to their economic stability.[81] Corporate debt in the form of bond issuance by companies in China and other developing countries in particular has soared. The value of China's nonfinancial corporate bonds outstanding rose from $69 billion in 2007 to $2 trillion at the end of 2017, making China one of the largest bond markets in the world. Outside China, growth has been strongest in Brazil, Chile, Mexico, and Russia. Global corporate default rates are already above their long-term average, and the prospect of rising interest rates may put more corporate bond borrowers at higher risk.[82]

However, our analysis shows that debt levels do not appear to be higher in emerging economies than those observed in developed economies. In 2016, for example, emerging markets' debt-to-GDP ratio was, on average, about 50 percent lower than those ratios

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79 The economies of some recent outperformers, such as Kazakhstan and Azerbaijan, still have a high reliance on commodities. IHS Markit World Industry Service.

80 Ratna Sahay et al., *Emerging market volatility: Lessons from the taper tantrum*, IMF staff discussion note SDN/14/09, September 2014.

81 See, for example, Ahmed Shaghil, Brahima Coulibaly, and Andrei Zlate, "International financial spillovers to emerging market economies: How important are economic fundamentals?" *Journal of International Money and Finance*, September 2017, Volume 76, pp. 133–152; and Robert N. McCauley, Patrick McGuire, and Vladyslav Sushko, "Dollar credit to emerging market economies," *BIS Quarterly Review*, December 2015, pp.27–41.

82 *Rising corporate debt: Peril or promise?* McKinsey Global Institute, June 2018, on McKinsey.com.

in advanced economies.[83] While outperformers have a higher debt-to-GDP ratio than non-outperformer economies, the ratio is still 20 percent lower than the average observed in high-income economies.

The trends in leverage over the past decades also do not differ between emerging and developed economies. From 2000 to 2013, most countries showed increasing levels of leverage, measured in total debt over GDP, regardless of their archetype—emerging markets or not. Overall levels of debt have had a negative trend since 2013.

COMPETITION POLICIES CREATED IMPETUS FOR PRODUCTIVITY GROWTH

Developing economies are often considered less competitive than their high-income counterparts. Some economists attribute this supposed trait to higher regulatory barriers to entry, corruption and cronyism, smaller and fragmented markets, and high concentration in key markets.[84] Additionally, these economies have been slower to enact competition policies, with many countries lacking a legal framework to regulate antitrust behavior or having only sector-specific antitrust laws.[85]

Our analysis suggests that this impression is misplaced: emerging economies can be highly competitive environments, and this competitiveness contributes to the success of the leaders. Indeed, as we outline in Chapter 3, the 18 outperformers have about twice as many big companies per trillion dollars of GDP as do other economies, and they are competitive not just with firms from other developing countries but also with companies in advanced economies.

The competitive environment stems from a number of policy and corporate actions. Firm-level innovation is high. Policy makers work with the private sector to define the development agenda. And governments in the most successful countries rationalize regulations and barriers to growth. Where they give support to firms, it is time-bound and targeted, and the broader aim is to make the companies—and the economy as a whole—more competitive. One result is that outperformers achieved higher labor productivity growth across a diverse set of sectors.

Total factor productivity grew rapidly in some outperformer economies, including across individual sectors

Profitability and the capital it generates for investment in new tools and technology are key contributors to improved productivity. Another is total factor productivity (TFP) growth, a statistic that quantifies output in excess of inputs and so measures how efficiently physical and human capital is used in production. TFP growth can, for example, indicate how well a country or a company has adopted new technology to drive productivity growth, how well its managers have used new technology, and how widely it has spread new technology though all parts of the enterprise.[86]

Rapid growth in total factor productivity is most apparent early in the growth of outperforming economies among the developing countries we analyzed. For recent outperformers, it accounted for one percentage point of annual GDP growth on average from 1995 to 2016, compared with having no measurable effect or even negative effects in

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[83] Includes total debt from households, private sector, and government. McKinsey Global Institute analysis.

[84] See Hassan Qaqaya and George Lipimile, eds., *The effects of anti-competitive business practices on developing countries and their development prospects*, United Nations Conference on Trade and Development, 2008.

[85] Ajit Singh, *Multilateral competition policy and economic development: A developing country perspective on the European Community proposals,* United Nations Conference on Trade and Development, Series on Issues in Competition Law and Policy, 2004.

[86] The relationship between total factor productivity and income levels was well established in the seminal paper by Robert E. Hall and Charles I. Jones, "Why do some countries produce so much more output per worker than others?" *The Quarterly Journal of Economics,* February 1999, Volume 114, Number 1, pp. 83–116.

middling, underperformer, and high-income economies; in China, which was not affected by the Asian financial crisis, TFP growth accounted for 4.4 percentage points in the 1990s.[87] After China, top performers in this area were Belarus and India.

TFP for long-term outperformers was low in the period from 1990 to 2016, which can be attributed to the Asian financial crisis. Since 2000, TFP in long-term outperformers has grown 1.4 percent annually, compared with 0.4 percent in other emerging markets. Long-term outperformers' growth acceleration also started earlier: for example, South Korea had average TFP growth of 2.4 percent from 1965 to 1990.[88]

In addition to achieving high TFP growth overall, the outperformer economies of China, India, and South Korea achieved exceptional TFP growth across many sectors, including manufacturing, knowledge-intensive services such as information and communications technology (ICT), transportation, and utilities. Manufacturing subsectors such as automotive, electronics, and pharmaceuticals consistently delivered among the highest levels of TFP growth in these economies, expanding between 2.6 and 8.0 percent per year from 1980 to 2012.

One approach to managing and eventually scaling innovation is to set up local R&D centers and invest in talent that helps develop new products for evolving local markets. Several top outperformer companies have used this strategy for their expansion, such as Hyundai, which opened an R&D center in Hyderabad in 2009 to adapt its products to the needs of the Indian market; it is now India's second-largest car manufacturer. To increase speed of innovation, companies can also leverage organizational models that encourage business units to interact with customers frequently and iterate often without need of centralized approval processes.

The public sector coordinated with the private sector to define the development agenda

Successful economic policy in outperformers has often been developed through coordination with the private sector. In particular, many long-term outperformers have employed formal mechanisms to facilitate this coordination, such as private-public councils and advisory committees on specific topics and industries. This coordination process allowed them to incorporate a private-sector perspective on the key challenges faced by an economy and how these could be addressed by government intervention. Wide participation of different stakeholders in these discussions reduced the implementation of distortionary policies that would benefit one firm or one sector to the detriment of others. Finally, these processes increased trust and transparency between private- and public-sector efforts, improving collaboration.

From the 1960s to the 1980s, for example, the South Korean government coordinated closely with the nation's main business leaders through monthly export-promotion meetings led by the country's president. Through these meetings, the previous month's national export performance was tracked and compared with previously set targets, with key challenges and obstacles identified. Presidential directives aimed at addressing these challenges were issued to leaders of the Korean government, and progress on these initiatives was reviewed every month. By assigning personal accountability to government officials and reviewing progress monthly, these meetings aligned the efforts of the entire South Korean government toward the export drive and set an expectation for quick results.[89]

[87] Alejandro Nin Pratt, Bingxin Yu, and Shenggen Fan, "The total factor productivity in China and India: New measures and approaches," *China Agricultural Economic Review*, September 2008, Volume 1, Number 1, pp. 9–22.

[88] Nirvikar Singh and Hung Trieu, "Total factor productivity growth in Japan, South Korea, and Taiwan," University of California, Santa Cruz, working paper, July 1996.

[89] Jungho Yoo, *How Korea's rapid export expansion began in the 1960s: The role of foreign exchange*, KDI School of Public Policy and Management working paper number 08-18, November 2008.

Other outperformers have also implemented formal public-private coordination mechanisms. For example, the Malaysian Business Council was created in the early 1990s as a forum for leaders from government, business, and labor to align on the direction of economic policy. Singapore has integrated domestic and international business leaders to government statutory boards (such as the Economic Development Board's International Advisory Council) to provide recommendations on economic policy. These countries also employed specific working groups to inform industrial strategy for key sectors, as well as working groups focused on crosscutting issues such as labor and wages. Regional business coordination also had a role in outperformer success: a study of Indian states, for example, found a correlation between state business relations and economic growth.[90]

Major income- and demand-enabling strategies of governments in outperformer economies, such as affordable housing programs, urban transit, and financial inclusion, have all been started with significant private-sector innovation. For instance, state-owned banks and private financial sector players worked together on the digital banking and payments inclusion drive in India. Hong Kong's Mass Transit Railway system partnered with private-sector developers to ensure the affordability of public transport, keeping the base fare well below those of comparable cities such as Tokyo and New York.[91] Singapore's programs to increase flexibility in employment such as the "Work-life Works" Funds and the "Flexi-work Scheme," and South Korea's attempts to boost the human capital of small and medium-size enterprises through training led by large companies, have all been realized by providing the right government incentives to the private sector.

Not all outperformers use formal bodies to facilitate transparent coordination between the private and public sectors in policy making. Some countries, such as Ethiopia and Vietnam, still rely on rigid top-down decision making and coordination with state-owned enterprises or informal consultation with specific companies when setting policy.[92] Some countries are trying to increase private-public sector coordination on economic policy. One such example is Indonesia's push in 2014 to increase the private sector's involvement in infrastructure projects. However, these changes happen gradually—Indonesia's infrastructure investment is still dominated by investments from state-owned enterprises.[93]

Rationalizing regulations and barriers to growth

Beyond targeted support, governments in many outperforming developing economies invested in creating a business environment that promoted growth more broadly. Firms in many outperformer economies face fewer regulatory and tax barriers than companies in non-outperformer countries. This encourages business creation and improved efficiency. According to data from the World Bank Enterprise Survey, firms in outperformers are less likely than those in other emerging markets to consider tax management a major obstacle (9 percent of respondents in outperformers versus 23 percent in other emerging markets). Similarly, fewer outperformer firms struggle with customs and trade barriers (9 percent versus 16 percent), facilitating exporting and importing activities. Revealingly, senior managers in other emerging economies report spending 11 percent of their time on government regulatory issues, while their peers in outperformer economies say they spend only 5 percent.

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90 Massimiliano Calì, *Measuring state-business relations in Indian states*, Research Programme Consortium for Improving Institutions for Pro-Poor Growth (IPPG), 2010.

91 Lincoln Leong, *The "rail plus property" model: Hong Kong's successful self-financing formula*, June 2016, McKinsey.com.

92 Tilman Altenburg, *Industrial policy in developing countries: Overview and lessons from seven country cases*, German Development Institute discussion paper number 4/2011, 2011.

93 Hidayat Setiaji and Gayatri Suroyo, "Private sector left in dust in Indonesia's infrastructure push," Reuters, October 20, 2017, reuters.com.

Although some outperformers have already excelled in eliminating barriers to business (Singapore, South Korea, and Hong Kong are ranked second, fourth, and fifth, respectively, in the World Bank's Ease of Doing Business index), not all outperformers have been equally progressive when it comes to reducing red tape. For example, China and Indonesia are under the 50th rank in this indicator, and four recent outperformers rank in the top 100 (Cambodia, Ethiopia, Laos, and Myanmar).

Others are seeking to move up the rankings through wide-ranging efforts to lower barriers to business. Kazakhstan, for example, has made strides in improving its business environment by gradually strengthening shareholder and investor protections, reducing paperwork and fees, and facilitating processes. India implemented a large spate of reforms all at once in 2017 that allowed it to jump 30 positions on the Ease of Doing Business index. India's Department of Industrial Policy and Promotion is aiming to implement 90 additional reforms this year, seeking to continue the momentum.[94] Another recent example of policy aimed at reducing barriers to business is the acceleration of drug approval processes authorized in China in 2017. Through this policy, bureaucratic requirements will be reduced and evidence from overseas clinical trials will be made admissible for the approval process.[95]

Beyond eliminating business barriers, other emerging economies need to be wary of avoiding distortionary policies that discourage firms from growing.[96] One such policy was Mexico's REPECO, a simplified tax scheme, introduced to increase tax revenue and formalize the status of micro, small, and medium-size enterprises. REPECO allowed companies reporting revenue under 2 million Mexican pesos (about $150,000) to pay a simplified tax of about 2 percent on revenue instead of the regular income tax (28 percent on profits).[97] Companies could pay the lower tax for ten years as long as they did not surpass the revenue cap. As a result, a disproportionate number of companies reported revenue just below the cap while this tax scheme was in effect.[98]

By avoiding these types of distortions, simplifying business processes, weeding out obsolete or badly drafted regulations, providing targeted support, and fostering robust competition, outperformers created the right environment for successful large firms to thrive. This environment also incentivized companies to be more innovative, anticipate disruptions, make bold and nimble investments, and expand outside their traditional countries or regions. These firms, and the policies that helped incubate them, are a crucial element of the pro-growth agenda and should continue to be an area of focus for current outperformers and other developing economies seeking to replicate their growth.

Targeted and time-bound support based on increasing competitiveness

While governments in outperformer countries tend to work closely with their private sectors to identify the challenges they face and provide country- and sector-wide support, this support is tied to stringent export and growth goals to simulate competition among domestic firms and then force winners to compete with multinationals in global markets.

In early stages of development, many outperformer governments actively helped incubate competitive domestic companies through sector-wide support. Low-cost loans, preferential exchange rates, low tax rates, and R&D subsidies were provided to what governments

94 Ruchika Chitravanshi, "Ease of doing business: Government targets 90 reforms to climb rank in World Bank's report," *Economic Times*, January 4, 2018, economictimes.indiatimes.com.

95 "Big pharma gets boost as China speeds up new drug approvals," Bloomberg News, October 8, 2017, bloomberg.com.

96 Beom Cheol Cin, Young Jun Kim, and Nicholas S. Vonortas, "The impact of public R&D subsidy on small firm productivity: Evidence from Korean SMEs," *Small Business Economics*, February 2017, Volume 48, Number 2, pp. 345–360.

97 Using average exchange rate of 2014, the last year in which REPECO was in effect.

98 Secretaría de Administración Tributaria (SAT); INEGI 2004 Census.

considered high-potential firms within these industries. The goal was to lower the risk of innovation and entry to new sectors for local firms.[99]

Some outperformers also provided protection to selected "infant industries" by imposing high tariffs on imports. The idea was that firms in these sectors would be temporarily shielded from international competition while they developed capabilities. However, protection would gradually be lifted as these industries became more productive and competitive. South Korea's import policy strictly limited all but strategic imports and imposed high tariffs in the 1960s and slowly transitioned to a more liberalized (but still not completely open) scheme in the 1980s.[100] Other outperformers, such as China, India, and Thailand, are also characterized by slow, deliberate liberalization.[101] India, Indonesia, Malaysia, and South Korea opened up to more foreign direct investment but set ownership ceilings, required joint ventures, or defined stringent export or profit repatriation quotas.[102]

While these policies were successful in many outperformers, not all emerging economies were able to manage the market distortion risks they entailed. Mexico's import-substitution policies of the 1960s were supposed to grant protection to industries that were strategic in the country's import-substitution efforts, as long as domestic production was not too inefficient (measured by foreign-domestic price differentials).[103] Initially, nurturing industry drove up total factor productivity in manufacturing from 0.8 between 1960 and 1973 to 1.5 between 1973 and 1980.[104] However, such policies ended up shielding some companies even when local production was inefficient (over 100 percent foreign-domestic price differential). This widened the productivity gap between domestic and international firms in certain sectors and limited the ability of domestic companies to compete in the long run.[105] Similarly, India, the Philippines, and other emerging economies that historically offered continuous protection to single firms through licensing controls, or protected classes of firms such as the small-scale sector, found it more difficult to create a globally competitive manufacturing sector. India's manufacturing firms grew competitive in sectors such as automotive and pharmaceuticals only after pro-competition policies were introduced in the 1990s.

While competition has played an important part in innovation and growth, outperformer governments also had a role in enabling and empowering domestic firms. Government support can be helpful under certain conditions in which market failures limit the ability of firms to generate sustainable productivity growth on their own. For example, in countries where the financial sector is underdeveloped, government-subsidized loans may be necessary to help companies access capital for investment.

However, such policy interventions can result in market distortions and rent capture, in which stagnant and unproductive sectors and firms subsist on government support and crowd out other, potentially more efficient players and opportunities. Successful policy makers in the outperforming economies limited the potential distortion of their interventions

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99 *The East Asian miracle: Economic growth and public policy*, World Bank, August 1993.

100 Kwan S. Kim, *The Korean miracle (1962–1980) revisited: Myths and realities in strategy and development*, Kellogg Institute working paper number 166, November 1991.

101 *The East Asian miracle: Economic growth and public policy*, World Bank, August 1993.

102 Alice H. Amsden, *The Rise of "The Rest": Challenges to the West from late-industrializing economies*, Oxford, UK: Oxford University Press, 2001.

103 Foreign-domestic price differential is the difference between the price of the same good produced locally and in foreign markets. A high differential indicates that the local industry is highly inefficient at producing the good compared with other markets, and also means that imposing import protection would drive up costs significantly for consumers of that good.

104 Jaime Ros, *Mexico's trade and industrialization experience since 1960: A reconsideration of past policies and assessment of current reforms*, Kellogg Institute working paper number 186, January 1993.

105 Noemi Levy-Orlik, "Protectionism and industrialization: A critical assessment of the Latin American industrialization period," *Brazilian Journal of Political Economy,* October 2009, Volume 29, Number 4, pp. 436–453.

by working closely with the private sector and soliciting its perspective as they drew up ideas. When protecting specific sectors, these outperformer-economy governments implemented time limits or tied their support to strict conditions that aligned company incentives with national economic development.

In some cases, outperformer economies used simulated competition—that is, contests—to allocate state subsidies based on achieving performance standards relating to exports or technological upgrading to ensure that support went to the best firms and avoid generating inefficiencies.[106] For example, South Korean "performance requirements" from the 1960s to 1980s made access to scarce licenses or concessional credit conditional on meeting specific export sales targets. By encouraging competition in export markets, and by weeding out firms unable to meet the targets, these contests ensured that domestic firms continued to increase their productivity. Other outperformer economies with substantial domestic markets, such as China and India, also have relied on internal competition to drive productivity. China's digital industry is a good example: even with the so-called great firewall, domestic competition to secure the attention and wallets of 770 million internet users in China was fierce enough to generate globally competitive digital companies.

In many cases, companies that could not meet export targets in China, Singapore, South Korea, and other countries that set these standards either had to accept mergers with more successful companies or go out of business. This motivated companies to scale up and increase productivity.[107] In other cases, organizations such as Indonesia's Investment Coordinating Board monitored borrowers' activities carefully and were willing to remove their promotion certificates if they did not follow loan terms and conditions. South Korea's Development Bank, on the other hand, had a strict loan ceiling on project costs to assure co-investment and risk sharing to align incentives.[108]

A recent example of targeted support is the Made in China 2025 initiative. This program will provide $300 billion in low-interest loans and R&D subsidies to support firms competing in a range of disruptive high-tech sectors. Bold support is tied to demanding goals such as market share targets. The initiative has attracted some heat from the United States, however, as it is perceived to favor domestic Chinese companies.[109]

OUTPERFORMING ECONOMIES HAVE IMPROVED GOVERNMENT EFFECTIVENESS

Recent research by the economists Daron Acemoglu and James Robinson emphasizes the importance of institutions to economic development.[110] While institutional capacity was an important distinguishing factor, it was less about the actual level of government effectiveness than the ability of outperforming economies to improve the quality of their bureaucracy and institutions that set them apart from the rest.

The Government Effectiveness Score of the long-term outperformers, as measured by the World Bank, improved more than twice as much as recent outperformers from 1996 to 2016, and five times as much as middling performers. Meanwhile, underperformers

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[106] Ajit Singh, *Competition and competition policy in emerging markets: International and developmental dimensions*, United Nations Conference on Trade and Development, G-24 Discussion Paper Series, number 18, September 2002; Ajit Singh, *Multilateral competition policy and economic development: A developing country perspective on the European Community proposals*, United Nations Conference on Trade and Development, Series on Issues in Competition Law and Policy, 2004.

[107] Joe Studwell, *How Asia Works: Success and Failure in the World's Most Dynamic Region*, New York, NY: Grove Press, 2013.

[108] Alice H. Amsden, *Rise of "The Rest": Challenges to the West from Late-Industrializing Economies*, Oxford, UK: Oxford University Press, 2001.

[109] Keith Bradsher and Paul Mozur, "China's plan to build its own high-tech industries worries Western businesses," *New York Times*, March 7, 2017.

[110] Daron Acemoglu and James A. Robinson, *Why Nations Fail: The Origins of Power, Prosperity, and Poverty*, New York, NY: Crown Publishing, 2012.

regressed over that period. Outperformers also made the most progress with the institutional indicators of regulatory quality and rule of law.[111]

The process of agile experimentation: pilot, learn, iterate, and scale

Despite the need to consider the effects of policies and programs holistically, planning and conducting analyses ex ante has limitations. In reality, it is impossible to fully predict the direct and indirect effects of policies and programs. While historical success cases from other countries can offer a template, they may not translate perfectly because of the unique context of each economy and potential interactions with other policies in place.

Experimentation and iteration can help policy makers navigate evolving environments to identify the best policies and programs for the local economy for the times. For example, the Chinese government identified successful policies tried and tested in local jurisdictions and replicated them at the national level. This concept, called *youdian daomian,* or "fanning out from a point to an area," allowed the nation to quickly formulate new models based on actual performance from decentralized experiments. China also used special economic zones to test controversial market-oriented policies before scaling them nationally.

The role of pilot programs and experiments is gaining increasing traction throughout the world of policy making, and not just in outperformer economies. Cambodia's Health Equity Funds system, which pays for medical treatment bills as well as meals, transport, and associated costs for lower-income families, started as a pilot in 2000 and has scaled up to the national level; it now covers 3 million people.[112] Mexico provides direct cash transfers to poor people on the condition that they send their children to school and participate in medical checkups. The program was piloted in 1997 and has since scaled to reach not only other states in Mexico but also other countries around the world, in various forms.

Governments can experiment with policies in different ways. Organizations such as the Abdul Latif Jameel Poverty Action Lab, based in Cambridge, Massachusetts, work with governments around the world to implement what practitioners call "randomized control trials," in which the efficacy of interventions is tested and evaluated like science experiments. The UK government's Policy Lab employs laboratory-based experiments using "speculative design," in which participants are asked to engage with prototypes to gauge how people may react to future change; this allows for simulated experimentation in a lower-risk manner. The Monetary Authority of Singapore, playing in what it characterized as a "regulatory sandbox," temporarily relaxed certain regulations for select private-sector players to encourage innovation in fintech.

To design policies that are appropriate for the local context, governments should not be afraid to modify programs and try new approaches. They do not need to do this alone—partnerships with other organizations and the use of evidence-based learning and iteration can help policy makers identify and scale those ideas that can have a positive impact in the broader local context.

Improved capabilities including public institutions and the bureaucracy

Building a better bureaucracy has been a major focus for countries among the 18 outperformers, especially the seven whose growth has been consistent over 50 years. South Korea, for example, invested in sending bureaucrats abroad to train in Germany and the United Kingdom, countries where strong manufacturing sectors had earlier propelled rapid economic development. China systematically rotated promising bureaucrats through various functions such as personnel, finance, licensing, approval of funding, and investment projects, and between rich coastal provinces and less developed inland areas. The

[111] World Bank Worldwide Governance Indicators, 2017.

[112] Christina Zola, *How the Health Equity Funds system helps Cambodia's poorest citizens*, University Research Co., January 7, 2015, urc-chs.com.

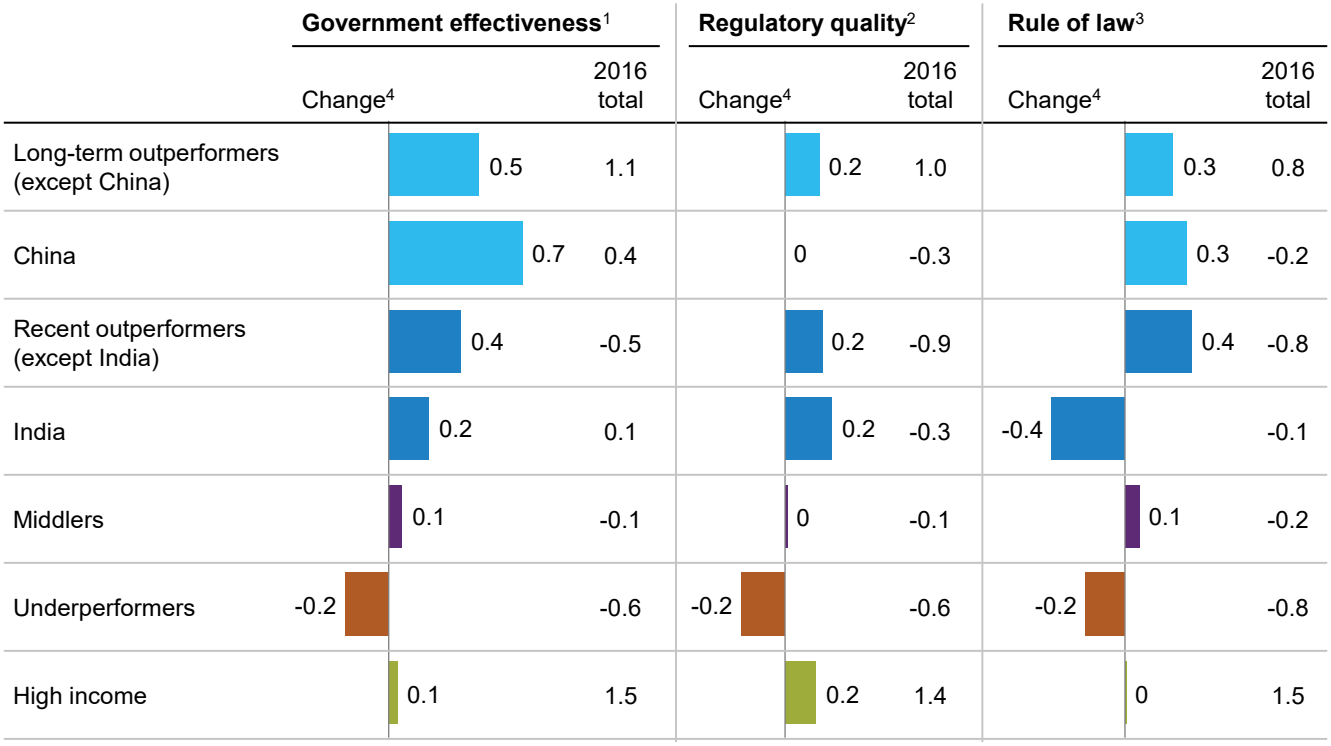
program, an integral part of training, was designed to improve local capacity as well as train officials and provide them with a more holistic perspective before they took on more senior positions in government.[113]

Overall, the 18 outperforming developing economies have considerably improved their government effectiveness, regulatory quality, and rule of law compared with their 53 peers (Exhibit 9).

Exhibit 9

Outperforming developing economies improved policy and institutional effectiveness.

Absolute change in Worldwide Governance Indicators score, 1996–2016
Simple average across archetypes
Score ranges from approximately -2.5 (weak) to 2.5 (strong)



1 Reflects perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.
2 Reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.
3 Reflects perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.
4 Changes show only the difference between 1996 and 2016 and do not reflect declines early in that period or steady scores more recently.

SOURCE: World Bank Worldwide Governance Indicators 2017; McKinsey Global Institute analysis

Elsewhere, governments have established "delivery labs" and "delivery units" to test new approaches to delivering services and have emphasized essential skills such as capacity building, monitoring, and evaluation. It all grows out of a realization that public-sector implementation and accountability matter in building a stronger economy.

Moreover, outperformers not only implemented broad policies and programs, but also tailored policies to suit their starting conditions and resources, and they have been willing to change course when facing changed circumstances. Governments in outperformer countries have taken into account critical constraints to their economies that they needed

[113] John P. Burns, "Civil service reform in China," *OECD Journal on Budgeting*, 2007, Volume 7, Number 1.

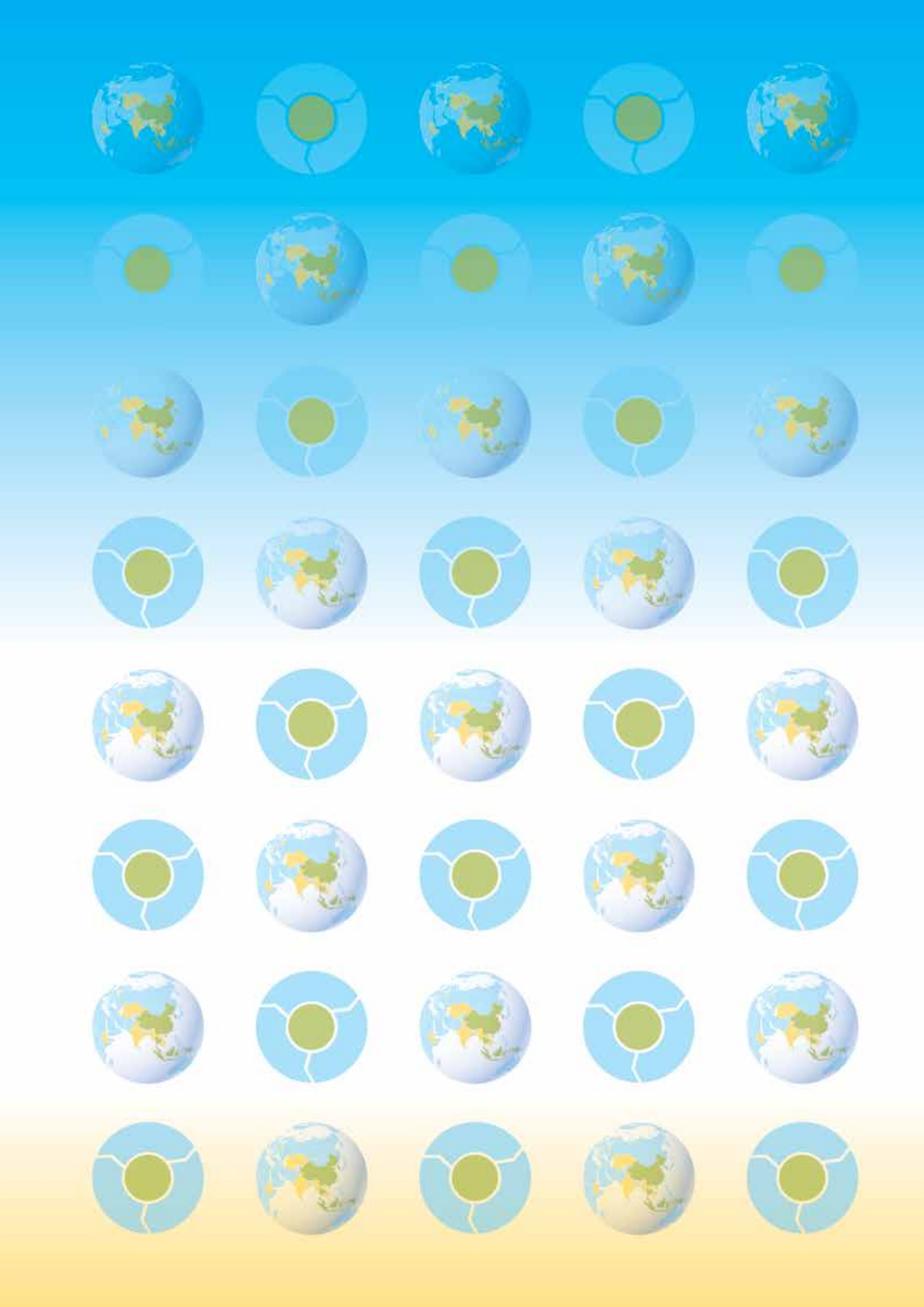
to address, to the extent permitted by local capabilities, political climate, or other factors. While they have relied on domestic and external expertise, they have also been unafraid to go against conventional wisdom in pursuing policies and programs they believed were appropriate for their context.

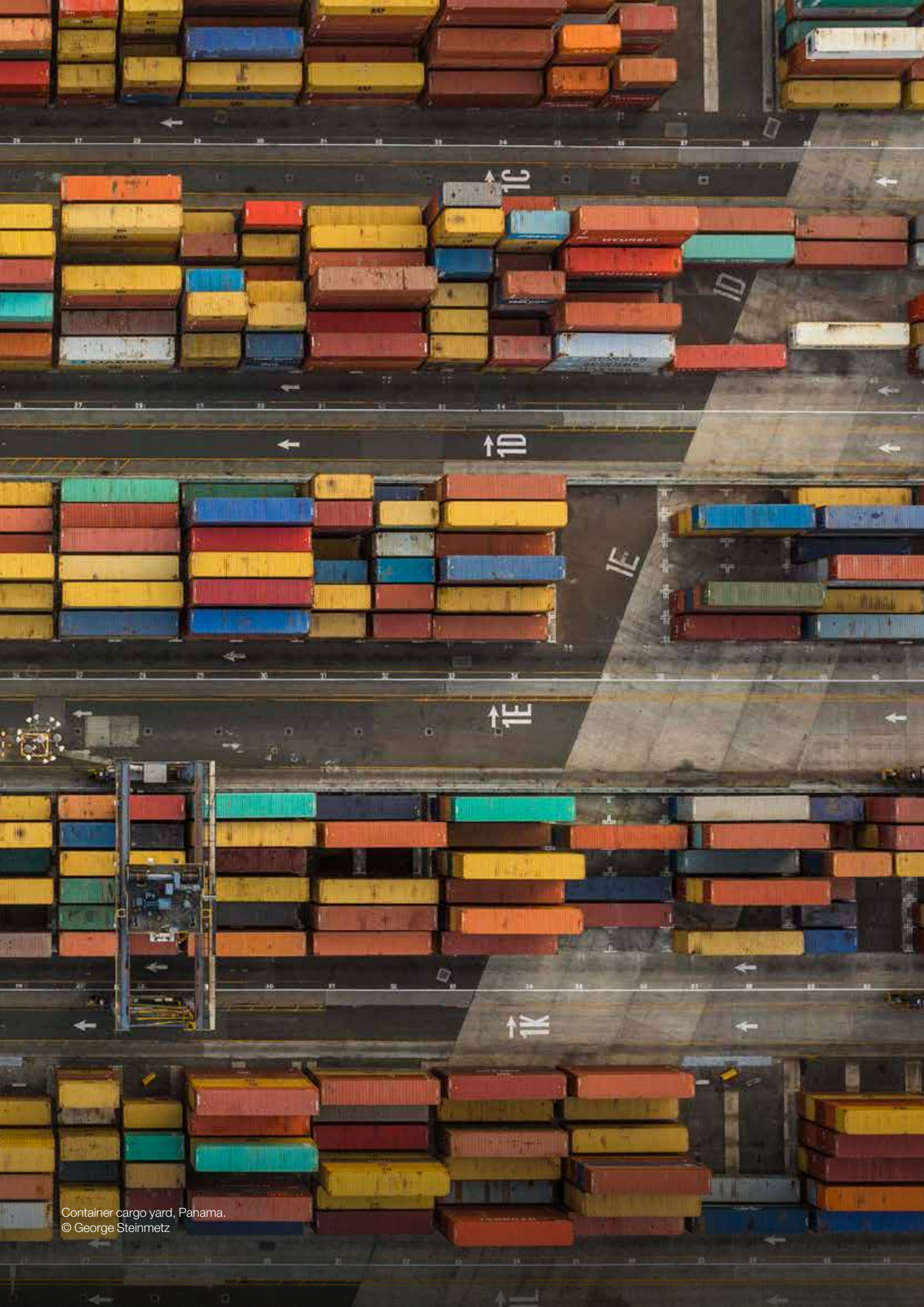
Singapore is a good example. After acknowledging that its limitations—in land, natural resources, and labor—could impinge on its competitiveness, the government decided to focus on attracting foreign investment and multinationals at a time when many other developing countries were wary of foreign involvement. Singapore simplified its bureaucratic processes and offered tax incentives while investing in education and building industry clusters as a means to being "business-friendly." In contrast, India, with a federal structure that devolves many powers to the country's 29 states, required the national government to focus its policies and programs on infrastructure, industrial licensing reform, and the financial sector, in which centralized policy making was possible and easier to implement, as opposed to areas such as health, education, or land, in which its influence was more limited.

China, like Singapore, also was undeterred by conventional wisdom. While reforming its state-owned enterprises, China relied heavily on public investments to boost productivity and retained capital controls to encourage domestic investment. Ethiopia, also contrary to received wisdom, retains state control of certain key sectors, including power, telecommunications, and airlines, and protects its financial sector from foreign competition.

•••

Policy has played a critical role in driving the exceptional performance of the leading developing countries in the list of outperformers. Macroeconomic measures that support capital accumulation and ensure stability help create the pro-growth agenda that propels emerging economies into the top ranks of performance. The strongest economic performance over the past half century has been established by countries that have focused on improving government efficiency. And outperformers have put in place a competitive ecosystem that has enabled large firms to thrive and, in turn, boost productivity and propel economic growth. What roles do these firms play? What are their characteristics? And how tough do they have to be to survive? We take a closer look in the following chapter.





Container cargo yard, Panama.
© George Steinmetz

3. EMERGING-MARKET FIRMS AS ASPIRING GLOBAL LEADERS

While no one characteristic by itself leads to rapid and sustained economic growth, the ability to nurture globally competitive, nimbly managed, and highly productive companies has been an essential contributor to the rapid growth of outperformer economies. Our 18 outperforming countries have almost twice as many large firms—which we define as those with annual revenue over $500 million—as other developing countries, adjusted for the size of the economies.

In this chapter we take a closer look at these companies. Some received wisdom about big firms in developing economies is based on a notion that they are overly protected and shielded from competition.[114] In fact, our research suggests the opposite is true. The competitive dynamics are fierce: more than half the emerging market firms that manage to reach the top in their countries are quickly displaced by rivals. Those that do stay on top reap outsize rewards, however—and as often as not, they outpace their more established global rivals from the United States, Europe, and other developed economies.

THE ROLE OF PRODUCTIVE FIRMS IS A KEY CHARACTERISTIC OF GROWTH OF OUTPERFORMING ECONOMIES

Large firms have been exceptionally important to the rapid economic growth of outperformer economies over the past 20 years. Their size and relevance have climbed amid the privatization of state-owned enterprises and initial public stock offerings by privately owned companies. From 1995 to 2016, large firms' revenue relative to GDP in outperforming developing economies almost tripled—from the equivalent of 22 percent of GDP to as much as 64 percent. That is close to the levels in high-income countries, where large companies' revenue is equivalent to 77 percent of GDP, and dwarfs the level in other developing economies, where big companies' revenue is, on average, equivalent to just 29 percent of GDP. The contribution of value added by these outperformer firms to GDP is no less spectacular: it grew from 11 percent in 1995 to 27 percent in 2016—or double the share among non-outperforming emerging economies (Exhibit 10).

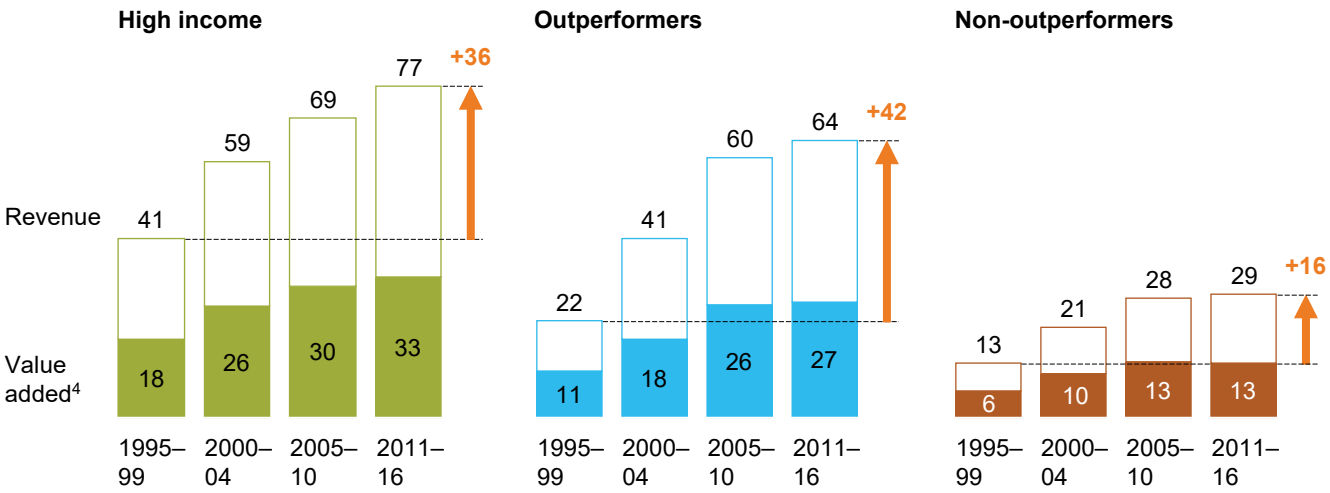
[114] See, for example, Christian Ritzel and Andreas Kohler, "Protectionism, how stupid is this? The causal effect of free trade for the world's poorest countries: Evidence from a quasi-experiment in Switzerland," *Journal of Policy Modeling*, November–December 2017, Volume 39, Number 6, pp. 1007–18; Andreas Nölke at al., "Domestic structures, foreign economic policies and global economic order: Implications from the rise of large emerging economies," *European Journal of International Relations*, September 2015, Volume 21, Number 3, pp. 538–567; Francis Ng and Alexander Yeats, "Open economies work better! Did Africa's protectionist policies cause its marginalization in world trade?" *World Development*, June 1997, Volume 25, Number 6, pp. 889–904.

Exhibit 10

Large companies have been important to the growth of outperforming developing economies.

N = 25 economies; 6,474 companies[1,2]

Ratio of large-company revenue to GDP, 1995–2016[3]
%



1 Outperformers include China, India, Indonesia, Malaysia, Singapore, South Korea, and Thailand; high-income economies include Canada, France, Germany, Italy, Japan, the United Kingdom, and United States; non-outperformers include Argentina, Brazil, Egypt, Mexico, Nigeria, Pakistan, Poland, Russia, Philippines, South Africa, and Turkey; Hong Kong is excluded as an outlier (large-company revenue is equivalent to more than 340% of GDP).
2 Publicly listed companies with more than $500 million in revenue in 2016.
3 Simple average across countries; 5-year averages taken due to year-on-year volatility.
4 Gross value added has been calculated as the difference between revenue and cost of goods sold; GVA contribution of large financial services firms has been estimated.
NOTE: Figures may not sum to 100% because of rounding.

SOURCE: World Bank; McKinsey Corporate Performance Analytics; McKinsey Global Institute analysis

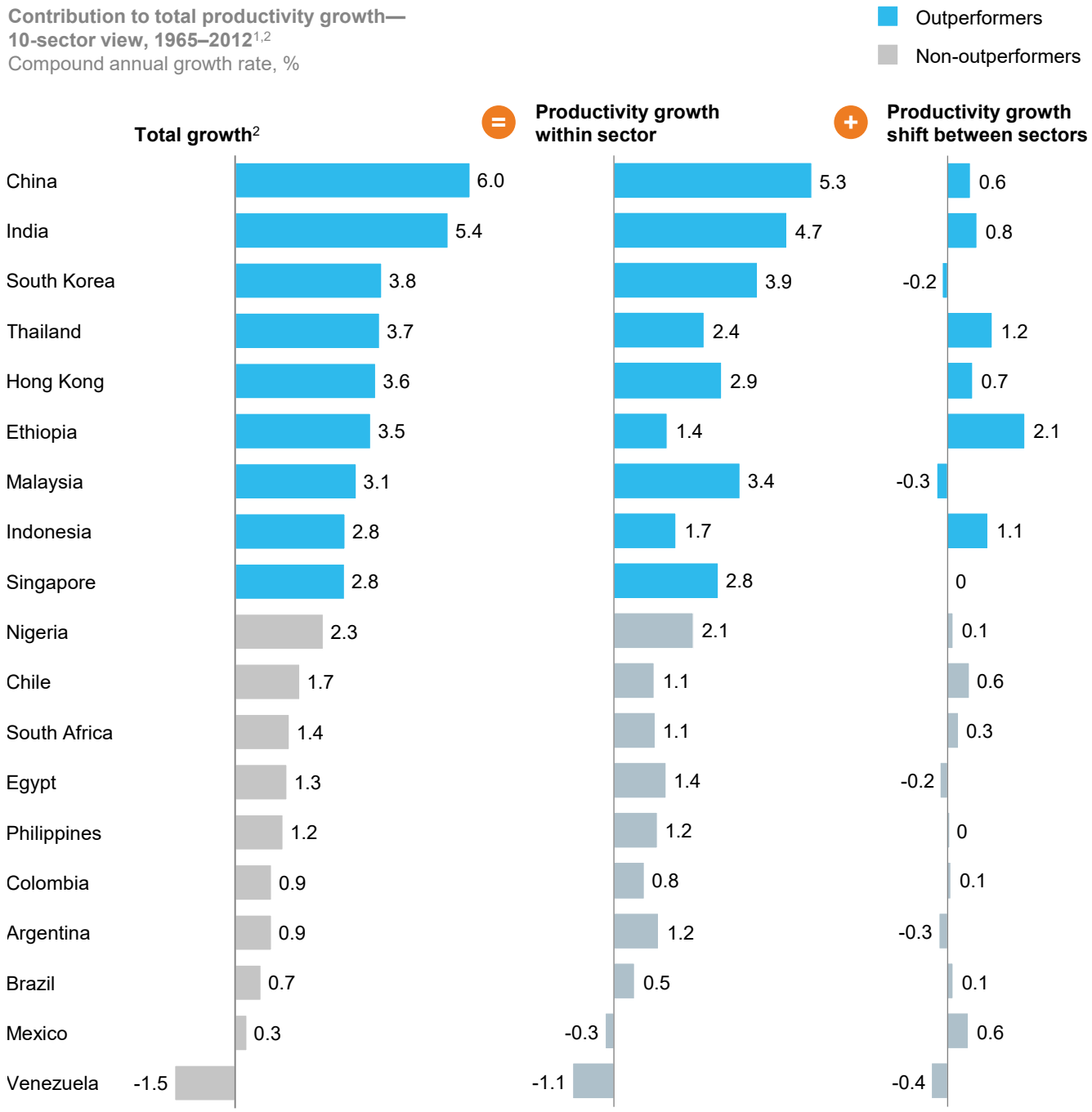
Within-sector performance matters more than sector mix, implying that the role of productive firms is a key determinant of performance of economies

Outperformer economies tend to have broad-based labor productivity growth across multiple sectors. We decomposed total productivity growth in the economy from 1965 to 2012 across 35 sectors, including 15 manufacturing sectors and 20 service sectors. We found that for most outperformers, long-term growth was overwhelmingly driven by productivity growth *within* individual sectors rather than from the mix *across* sectors (Exhibit 11). This was also true for middling and underperformer economies, though the within-sector productivity growth was much lower than for the outperformers.

Exhibit 11

Productivity growth within sectors matters more than sector mix.

Contribution to total productivity growth—10-sector view, 1965–2012[1,2]
Compound annual growth rate, %



1 Generalized exactly additive decomposition analysis at 10-sector level. Sectors analyzed include: agriculture, manufacturing, mining, utilities, construction, retail and accommodation, transport and communication, finance, government services, and personal services.
2 Earliest/latest years available used within time frame based on data availability by country; for recent outperformers, earliest/latest available years from 1995–2012 based on growth period.
NOTE: Results generally similar when analysis replicated using 38 sectors. Figures may not sum to 100% because of rounding.

SOURCE: Groningen Growth and Development Centre 10-sector database; McKinsey Global Institute analysis

In other words, success hinges less on finding the right mix of sectors than on identifying sources of competitive advantage and continuously driving productivity improvements within those sectors. Having world-class companies in unfashionable sectors can be as good as—or better than—having second- or third-tier companies in the "hottest" industries.

Our prior research has highlighted the importance of sector competitiveness over sector mix; indeed, the mix of sectors across countries at similar income levels is surprisingly similar. Most countries and large regions have a big share of comparable activities including retail and other local services, local manufacturing, construction, transportation, and other infrastructure services. The small deviations in these sector shares matter less than their performance relative to their peers.[115] Many industrial policies should be targeted to solve sector-specific barriers, but the likelihood of achieving long-term success by doing this in just a few sectors is low. Barriers across a range of sectors need to be addressed to make the pro-growth agenda robust. Moreover, no one or two sectors are large enough to substantially alter the track of economic development. Rather, aggregate performance of strong individual firms leads to better macroeconomic performance.

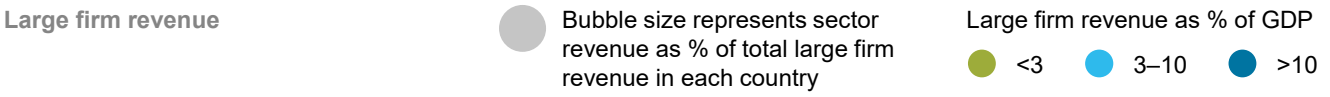
Indeed, firms—in particular, large, competitive companies in outperformer economies—have helped drive productivity growth by investing in boosting their own efficiency, as well as that of other firms within their sectors.

A closer look at the sectors in which outperformer firms are active shows a broad range, across the economy, with differences based on the structure of national economies. For example, some of the outperformers, including India and Thailand, have large energy and basic materials sectors, while others such as Indonesia and Singapore have a significant financial services sector (Exhibit 12).

[115] *How to compete and grow: A sector guide to policy,* McKinsey Global Institute, March 2010, on McKinsey.com.

Exhibit 12

Firms from outperforming countries operate in a wide variety of sectors.


Large firm revenue
Bubble size represents sector revenue as % of total large firm revenue in each country
Large firm revenue as % of GDP
<3
3–10
>10

	South Korea	Singapore	Thailand	China	Malaysia	India	Indonesia
Accommodation, food services, and entertainment/recreation activities							
Agriculture, forestry, and fishing							
Automotive and assembly							
Construction and real estate							
Energy and basic materials							
Financial and insurance services							
Healthcare							
Manufacturing: Consumer packaged goods							
Manufacturing: High tech							
Manufacturing: Other (chemicals, steel, textiles, etc)							
Manufacturing: Pharmaceuticals and medical products							
Telecommunications, media, and technology services							
Travel, transport, and logistics							
Wholesale and retail trade							
Other							
Total large firm revenue $ billion	**1,684**	**220**	**237**	**5,123**	**140**	**866**	**158**
Share of GDP %	**129**	**75**	**58**	**54**	**41**	**35**	**15**

NOTE: Hong Kong omitted as large firm revenue >300% of GDP; Singapore agriculture, forestry, and fishing omitted as outlier.

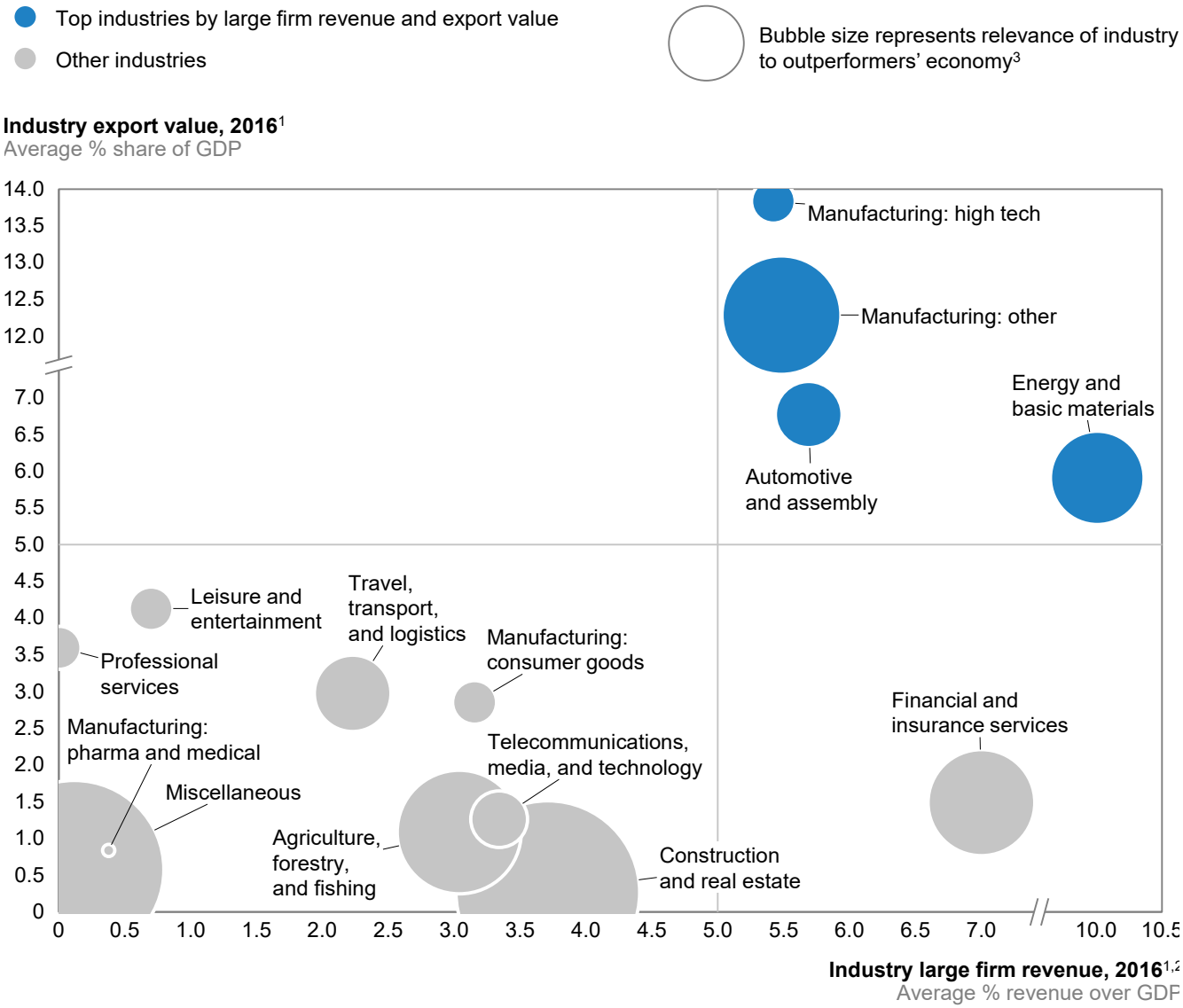
SOURCE: IMF; McKinsey Corporate Performance Analytics; McKinsey Global Institute analysis

Large companies are key drivers of external demand in leading developing economies

Large companies are important to outperformer economies for another reason: they tend to be active exporters. They have been particularly focused on industries with a high export orientation, such as tech, manufacturing, automotive, and energy, and can quickly outgrow their domestic markets. This gives them the scale and talent to manage global expansion by taking associated risks. Industries with higher revenue contribution from large firms tend to have higher export orientation (Exhibit 13). According to one estimate, large companies are 28 percentage points more likely than small firms to generate more than one-tenth of their revenue from exports.[116]

Exhibit 13

Large firms in outperformer economies generated more revenue in industries with a larger share of exports.



1 For outperformer sample set that includes China, India, Indonesia, Malaysia, Singapore, South Korea, and Thailand.
2 Publicly listed companies with more than $500 million in revenue in 2016.
3 Measured by average percentage share of gross value added by industry in 2016; wholesale and retail trade, healthcare and other utilities industries. contributing 12%, 2% and 1% of GDP to GVA have been excluded as no corresponding export data is available.

SOURCE: IHS Markit World Industry Service; IMF; McKinsey Corporate Performance Analytics; McKinsey Global Institute analysis

[116] World Bank Enterprise Survey.

Large emerging market firms build human capital capabilities directly and indirectly

Increased productivity translates to higher wages for employees. Large firms in outperforming emerging economies tend to pay more than SMEs—upward of 75 percent more in countries such as South Korea and Indonesia—and the presence of higher-paying firms can also translate into wage growth in other companies competing for the same labor pool.[117] This widening wage gap between large companies and smaller ones is not necessarily a positive development, since it risks creating social inequality. The issue is an important topic of debate in South Korea, for example, where wages paid by SMEs in manufacturing amounted to 77 percent of those of large companies in 1997, but fell to just over half—54.9 percent—in 2016.[118]

While expanded and improved training and R&D at large companies improve their workforce and product pipeline, workers who have acquired higher levels of skills can then take the new knowledge they have acquired to improve productivity as well as human capital elsewhere throughout the economy. An analysis of workforces at companies that received R&D grants from the Argentine Technological Fund (known by its Spanish acronym, FONTAR) revealed that this "spreading" effect is measurable and relevant. Employees who left FONTAR-supported companies to take jobs elsewhere had 3.5 to 7.9 percent higher wages than average, suggesting that their new employers placed a market value on the knowledge the employees had accumulated. Furthermore, companies that hired employees of FONTAR firms had tangible benefits from acquiring this knowledge base. They raised the value of their exports by 10 percent, increased their employment by 5 percent, and lifted average pay to their employees by 1 percent.[119]

Workers who leave large companies do not have to go to another big corporation to spread the benefits of their training and experience. Many of them build new companies: an analysis of successful entrepreneurs in the Indian startup ecosystem found that many began their careers working at big corporations.[120] In Ghana, an analysis of firm-level data reveals that domestic firms started by entrepreneurs with experience working for a large multinational in the same sector had higher productivity growth than average companies, with the effect being greater for entrepreneurs with less formal schooling.[121]

IT'S HARD TO STAY ON TOP IN AN OUTPERFORMING ECONOMY

In the best-performing developing economies, only the strongest large companies survive. Indeed, contested leadership in these markets is a vital piece of the puzzle that explains the success of large firms in outperforming economies and, by extension, the success of the economies themselves.

Competition encourages innovation and has spurred international growth. It has also led to outsize rewards for companies that succeed—and outsize value destruction for those that do not. These findings are based on two main sources: an analysis of 13,000 publicly listed companies in 27 countries and a survey of executives from 2,000 companies that assessed innovation, investment, and geographic expansion ambitions (see Box 4, "Our company analysis: sources and methodology").

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[117] Lucia Cusmano, *Small, Medium, Strong: Trends in SME Performance and Business Conditions*, Paris, France: OECD Publishing, 2017; Kim Kyung-ho, "Wage gap widening between SMEs, large firms," *Korea Herald*, August 31, 2016.

[118] Jung Suk-yee, "Small, midsized companies' wages are only 63 percent of conglomerates," *Business Korea*, March 23, 2017, businesskorea.co.kr.

[119] Victoria Castillo et al., *The effects of knowledge spillovers through labor mobility*, Munich Personal RePEc Archive paper number 69141, January 2016.

[120] Bala Srinivasa and Yash Jain, "Here's what data tells us about tech startup founders," YourStory, January 2017, yourstory.com.

[121] Holger Görg and Eric Strobl, *Spillovers from foreign firms through worker mobility: An empirical investigation*, Institute for the Study of Labor discussion paper number 591, October 2002.

Box 4. Our company analysis: sources and methodology

We analyzed more than 13,000 listed companies in 27 countries using McKinsey & Company's Corporate Performance Analytics tool and complemented our analysis with data from CompanyScope, a proprietary database of over 10,000 listed and unlisted firms. We also conducted an in-depth survey of 2,000 firms in ten industries across seven countries to assess their self-reported innovation and management practices, as well as financial performance. We also reviewed academic literature and additional data sources to understand the distinguishing practices taken by outperformer economies to support and incubate a large number of successful firms.

Our analysis focuses on publicly listed firms, given the accessibility of comparable, detailed information over a long period for a large group of countries.[1] The transparency and oversight requirements of publicly listed firms ensure the reliability of our data and analysis. We believe that using data only on publicly listed firms does not limit our ability to compare outperformers and high-income economies: although in previous years some outperformers had a higher share of large privately owned firms than high-income economies, currently both cohorts have around a 50 percent split between private and publicly owned large companies.[2]

To analyze the extent to which leadership is contested, and identify the winners and losers, we look at economic profit, defined as net operating profit less adjusted taxes minus the capital charge (invested capital multiplied by weighted average cost of capital). The change of this indicator over time is used in literature on competitive dynamics to estimate the ability of companies to create and sustain value.

To assess the financial performance of the most successful firms, we looked at top-quartile firms as measured by total return to shareholders (TRS), or the sum of share price appreciation and dividend yield divided by the starting share price. We chose this indicator as it reflects the current performance of companies as well as changes in the market's expectation of their future performance. This makes TRS a more holistic indicator than alternatives such as return on invested capital or revenue growth. To control for volatility, we use three-year rolling averages of TRS.

The survey helped us understand the distinctive practices of top firms in outperforming economies. We surveyed companies in a combination of high-income, outperforming, and non-outperforming economies. For the purposes of our survey analysis, we define top-performing firms as companies that had top-quartile self-reported revenue growth over the past three years within their country and industry. We use this variable as a proxy for total return to shareholders because survey participants could easily and accurately report it. Companies with high revenue growth (especially organic revenue growth) will generally deliver high total returns to shareholders provided they earn a sufficiently attractive return on invested capital relative to their cost of capital. It should be noted that, as with all surveys, self-reported assessments of companies may be subject to bias.

---

1 While the financial analysis in this chapter focuses on publicly listed companies with revenue over $500 million in current prices, some of the examples of outperformer firm behaviors we highlight are drawn from smaller firms.

2 Based on analysis of CompanyScope database of companies with revenue of more than $1 billion in 2010, including subsidiaries; 55 percent of advanced-economy firms with revenue of more than $1 billion were privately owned, compared with 48 percent for outperformer countries.

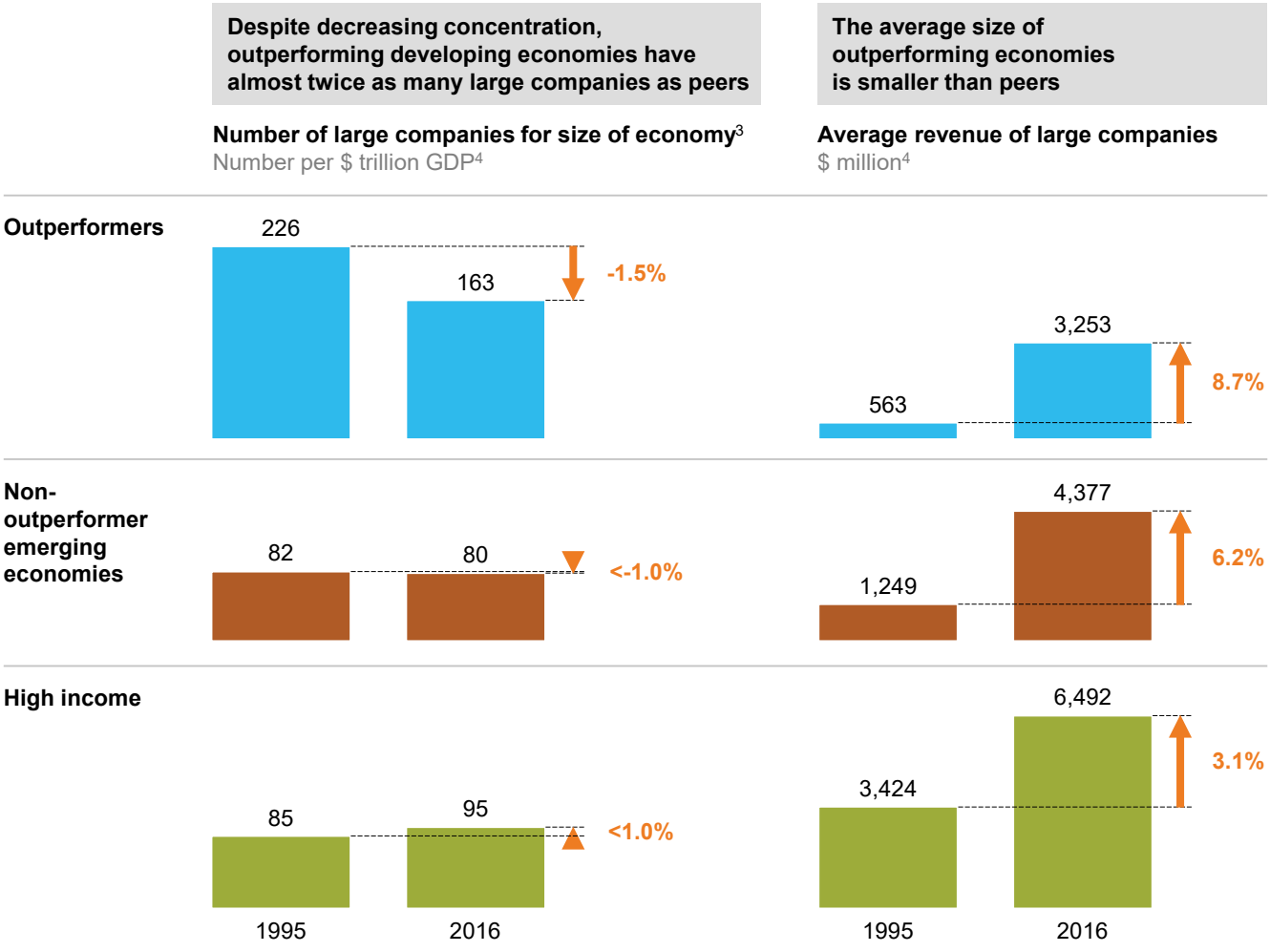
A snapshot of successful firms in outperforming economies: larger number, smaller size, faster growth

Successful large companies in the most dynamic developing countries are very far from the stereotype of monoliths. In fact, they are smaller on average than their peers in other economies: outperforming countries have about twice as many big companies per trillion dollars of GDP as high-income or other emerging economies. Two decades ago, that proportion was even larger—almost three times as many companies per trillion dollars—but it has declined somewhat as GDP has risen (Exhibit 14). This suggests that outperforming developing economies have spawned many moderately sized but rapidly growing companies, rather than fewer very large but slower-growing ones.

Exhibit 14

Outperformers have more large companies for the size of their economies.

N = 25 economies; 6,474 companies[1,2]



1 Outperformers include China, India, Indonesia, Malaysia, Singapore, South Korea, and Thailand; high-income economies include Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States; non-outperformers include Argentina, Brazil, Egypt, Mexico, Nigeria, Pakistan, Poland, Russia, the Philippines, South Africa, and Turkey; Hong Kong is excluded as an outlier (large-company revenue is equivalent to more than 340% of GDP).
2 Publicly listed companies with more than $500 million in revenue in 2016.
3 Simple average across countries.
4 Constant 2010 $.

SOURCE: World Bank; McKinsey Corporate Performance Analytics; McKinsey Global Institute analysis

Certainly, the growth has been spectacular. Average revenue of all large corporations based in outperformer economies, measured in constant 2010 US dollars, grew by 8.7 percent annually between 1995 and 2016, compared with 6.2 percent per year in all non-outperformer developing economies and 3.1 percent in high-income economies. Net operating profit also grew more strongly in the same period, at an average annual clip of 12 percent in outperforming economies, compared with 10 percent in other developing economies and 7 percent in high-income economies. Because of this extraordinary growth, outperformer firms in 2016 were on average 5.8 times the size they were in 1995, while companies in other developing economies were only 3.5 times larger and firms in high-income countries were 1.9 times larger.[122]

Top-quintile firms in outperforming developing economies are more likely than not to be displaced by competitors

A look at the ups and downs of top-performing companies in the 18 leading emerging economies highlights the extent to which leadership is contested. Competition at the top is fierce: companies in these countries that are ranked in the top quintile of firms in terms of economic profit are more likely than not to be displaced by challengers, and they stand a better chance of falling further down the rankings than do companies in high-income economies.

Of all outperformer firms in the top quintile of economic profit generation between 2001 and 2005, 55 percent fell to lower quintiles a decade later.[123] In other words, less than half stayed at the top for more than a decade. That compares with 38 percent of top-quintile firms in advanced economies between 2001 and 2005 which were displaced a decade later (Exhibit 15).

Not only were top firms in outperformer economies more likely to fall, but they were more likely to fall further: 23 percent of them dropped all the way to the bottom quintile of companies which accrue most economic losses. In advanced economies, only 15 percent of top-quintile firms fell that far.

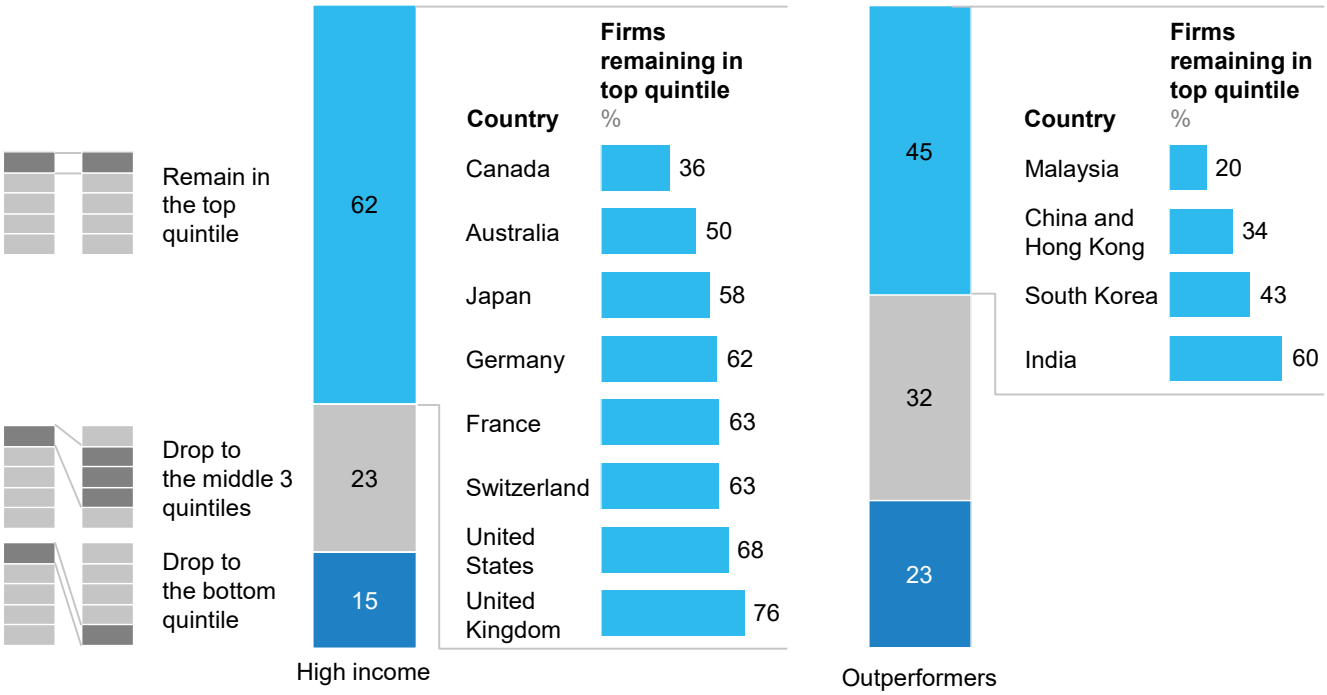
[122] Our analysis is based on McKinsey & Company's Corporate Performance Analytics tool. For details see technical appendix.

[123] Economic profit is the difference of return on invested capital and weighted average cost of capital multiplied by invested capital. It is a strong indicator for value created by firms; percent of annual economic profit generated by deciles estimated by dividing the sum of economic profit of the companies in a decile by the sum of economic profit generated by all companies in the archetype.

Exhibit 15

Emerging economies exhibit greater contested leadership among top firms.

Distribution of trajectory for top quintile economic profit generators over 10 years[1]
% (N = 48 countries and 2,284 total companies[2,3])



1 Quintiles based on rankings within archetype by economic profit generation between 2001–05 and 2011–15. Economic profit defined as net operating profit less adjusted taxes (NOPLAT) – [invested capital x weighted average cost of capital].
2 Outperformers include China, India, Indonesia, Malaysia, Thailand, Hong Kong, Singapore, and South Korea; high-income countries include Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Israel, Italy, Japan, Netherlands, Norway, Saudi Arabia, Spain, Switzerland, United Arab Emirates, the United Kingdom, and the United States; non-outperformer emerging economies include Argentina, Brazil, Chile, Colombia, Czech Republic, Egypt, Greece, Hungary, Mexico, Morocco, Nigeria, Pakistan, Peru, Philippines, Poland, Portugal, Russia, Slovak Republic, South Africa, and Turkey.
3 Publicly listed companies with more than $500 million in revenue in 2016, of which 457 were top quintile.

SOURCE: McKinsey Strategy Practice (Beating the Odds model v20.0); McKinsey Corporate Performance Analytics; McKinsey Global Institute analysis

Similar patterns are observed at the sector level. Across eight sectors we analyzed, the share of companies that remain in the top quintile in outperformer economies is ten to 40 percentage points lower in all sectors than in high-income economies except for consumer goods manufacturing. In high tech, for example, only 33 percent of top-quintile firms in outperforming economies stay the course over ten years, compared with 71 percent of their counterparts in advanced economies. In logistics, only about half as many top-quintile firms stay at the top in outperforming economies as in high-income ones (Exhibit 16).

While our analysis for this report focuses primarily on large companies, smaller companies play an important role in emerging economies, both in terms of employment and as part of the ecosystem of larger companies (see Box 5, “The role of SMEs in outperforming economies”).

Box 5: The role of SMEs in outperforming economies

The relationship between large and small firms is symbiotic, and they benefit from each other. Large firms have enough scale to invest more in R&D, drive global expansion, train employees, and pay higher wages. This can create a spillover effect, especially to smaller firms connected to the ecosystem of large firms. At the same time, the rise of competitive large firms is dependent on strong SMEs, since they are suppliers of intermediary input in the value chain. To assess the role of SMEs in outperforming economies, we looked at three levels.

- **National level.** Obtaining a consistent set of SME data across different countries is difficult because of varying definitions and lack of data availability. In general, small and medium-size enterprises across the world have not been the main driver of productivity. In emerging economies, this is partly due to their involvement in the informal sector, which reduces their ability to access credit, secure legal protections, integrate into supply chains of companies in the formal sector, and export their goods and services.[1] For example, our analysis suggests that in Mexico, the average SME is 17 percent as productive as large firms, while in Malaysia and South Korean, SME productivity is only 30 and 31 percent that of larger firms, respectively. This could be an opportunity: in higher-income economies such as France and Germany, SMEs can reach two-thirds of the productivity of large firms. Emerging economies have numerous examples of high-growth, productive SMEs that grow to become large, successful firms, including AmorePacific, Dajiang Innovation, and LG Group. At Infosys, a leading Indian technology and business services company, annual revenue in 2000 was just $200 million. By 2018, it had grown to exceed $10 billion.[2]
- **Sector level.** According to data from the World Bank Enterprise Survey, large companies in the outperforming economies are 28 percentage points more likely than small firms to invest in fixed assets in a given year, 31 percentage points more likely to invest in job training, 15 percentage points more likely to introduce product innovation in their markets, and 16 percent more likely to invest in R&D.[3] They also tend to think globally and are 23 percentage points more likely than small firms to license international technology.[4] This sometimes creates a spillover effect. The most direct impact of the presence of large companies on SMEs is via purchasing and subcontracting, in which business generated by larger firms is directly transmitted to smaller firms. A recent analysis of company-level data from South Korea observed that every 1 percent increase in the revenue of large companies translated into revenue jumps of 0.38 to 0.44 percent for SMEs upstream in their supply-chain networks.[5]

1 Diana Farrell, "The hidden dangers of the informal economy," *McKinsey Quarterly*, July 2004.
2 Infosys annual reports.
3 Companies with more than 100 employees, based on World Bank's definition of company size.
4 World Bank Enterprise Survey.
5 Hanhyung Pyo and Sangheon Lee, "Are there spillover effects of large firms' growth in supply chain networks? Evidence from the Korean economy," *Applied Economics Letters*, 2018, Volume 25, Number 17, pp.1208–11.

Box 5: The role of SMEs in outperforming economies (continued)

- **Firm level.** Certain types of SMEs play a crucial role in the economy, especially during economic transitions. For example, China's township and village enterprises (TVEs)—market-oriented public enterprises overseen by local government—expanded strongly in the 1980s and became significant generators of employment. TVEs have been found to be more efficient than comparable state-owned enterprises and can also be competitive in the international markets.[6]

SMEs play an indispensable role in developing countries, where they are often the main source of job creation. They account for about 90 percent of labor in Indonesia and South Korea, and around 70 percent of labor in Malaysia, Mexico, Singapore, and Turkey.[7]

Because of their relevance in job creation, SMEs have been a policy focus of many outperformer economies. For example, Malaysia, Singapore, and South Korea have central agencies that help small businesses, offering benefits such as credit guarantee programs, innovation subsidies, and assistance with international certification. Vietnam and other countries focus on creating vibrant startup and innovation hubs through accelerator and incubator programs.

The surge of digital technologies is helping these smaller companies address one of their major barriers: lack of access to markets. They are increasingly using e-commerce platforms such as Alibaba and eBay to reach customers at home and abroad. Digital platforms have expanded beyond e-commerce to provide connectivity for SMEs in many different sectors. For example, logistics aggregator Ymm56 is connecting business users with truckers in China's highly fragmented road-transportation industry. The platform also raises the productivity of shippers and truckers through better matching of supply with demand and by providing optimization and other value-added services. In India, the healthcare app Practo offers clinic management software as a service to independent clinics, providing automated end-to-end practice management and patient data capabilities—productivity levers that typically only larger hospital chains would have.

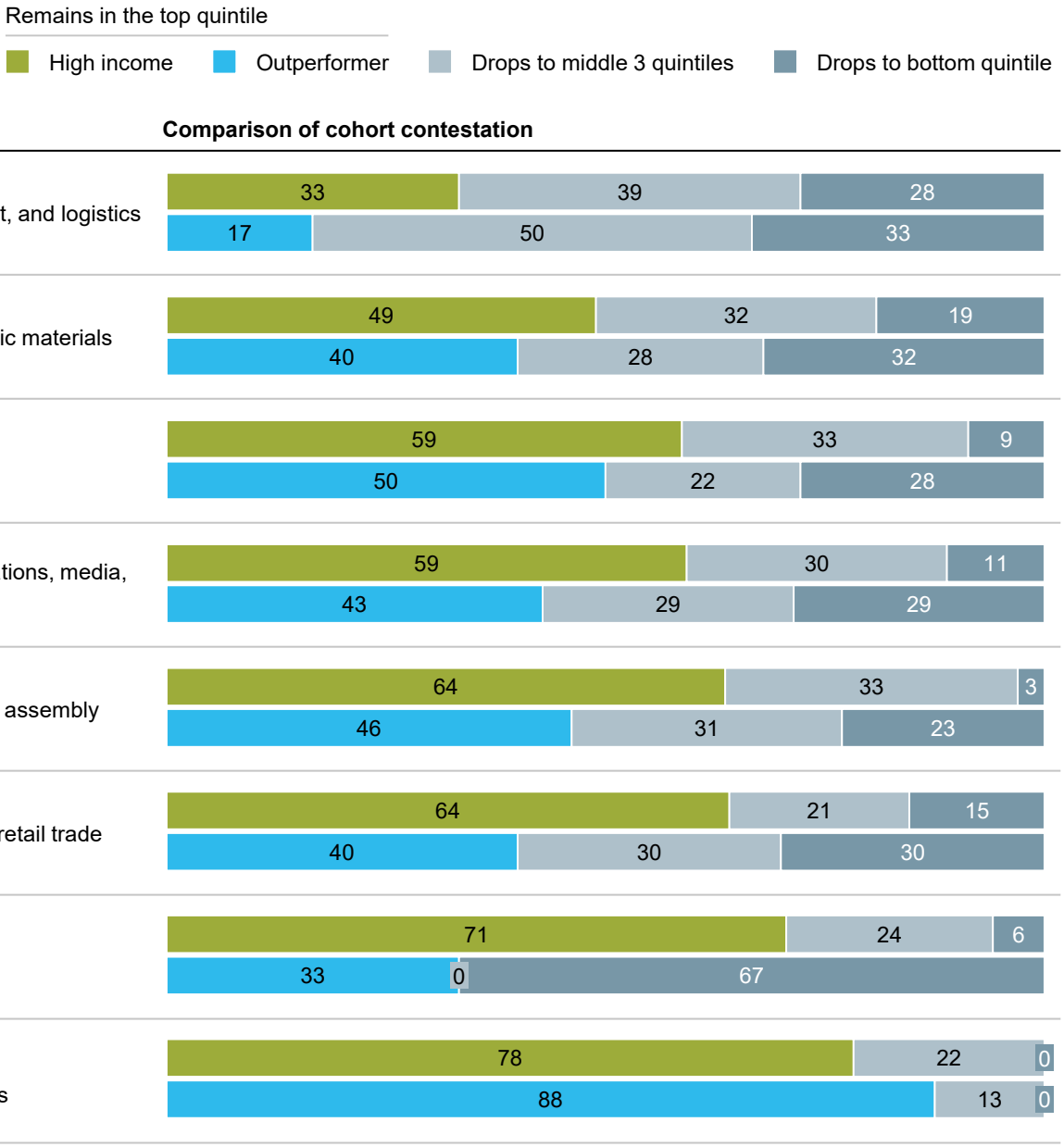
6 Xiaolan Fu and V. N. Balasubramanyam, "Township and village enterprises in China," *Journal of Development Studies*, February 2003, Volume 39, Number 4.

7 Ministry of SMEs and Startups, Republic of Korea, 2014; Indonesian Ministry of SME and Cooperatives, 2013; Malaysian Census, 2016; Singapore Department of Statistics, 2017; Instituto Nacional de Estadística y Geografía, Censo Economico, 2013; *Small and medium sized enterprises statistics 2016,* Turkish Statistical Institute. Definition of SMEs varies by country.

Exhibit 16

Contested leadership among top firms is higher in some sectors of outperformer economies than in the same sectors of high-income countries.

Distribution of trajectory for top quintile economic profit generators over 10 years[1]
% (N = 27 countries and 416 total companies[2,3])



1 Quintiles based on rankings within archetype by economic profit generation between 2001–05 and 2011–15. Economic profit defined as Net Operating Profit Less Adjusted Taxes (NOPLAT) – [Invested capital x Weighted Average Cost of Capital].
2 Outperformers include China, India, Indonesia, Malaysia, Thailand, Hong Kong, Singapore, and South Korea; high-income countries include Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Israel, Italy, Japan, Netherlands, Norway, Saudi Arabia, Spain, Switzerland, United Arab Emirates, the United Kingdom, and the United States.
3 Publicly listed companies with more than $500 million in revenue in 2016.
4 Industries where either or both of the following two conditions apply: total large firms <20, and top quintile large firms in 2001–05 <6; Additionally, miscellaneous and other utilities have been excluded.
NOTE: Figures may not sum to 100% because of rounding.

SOURCE: McKinsey Strategy Practice (Beating the Odds model v20.0); McKinsey Corporate Performance Analytics; McKinsey Global Institute analysis

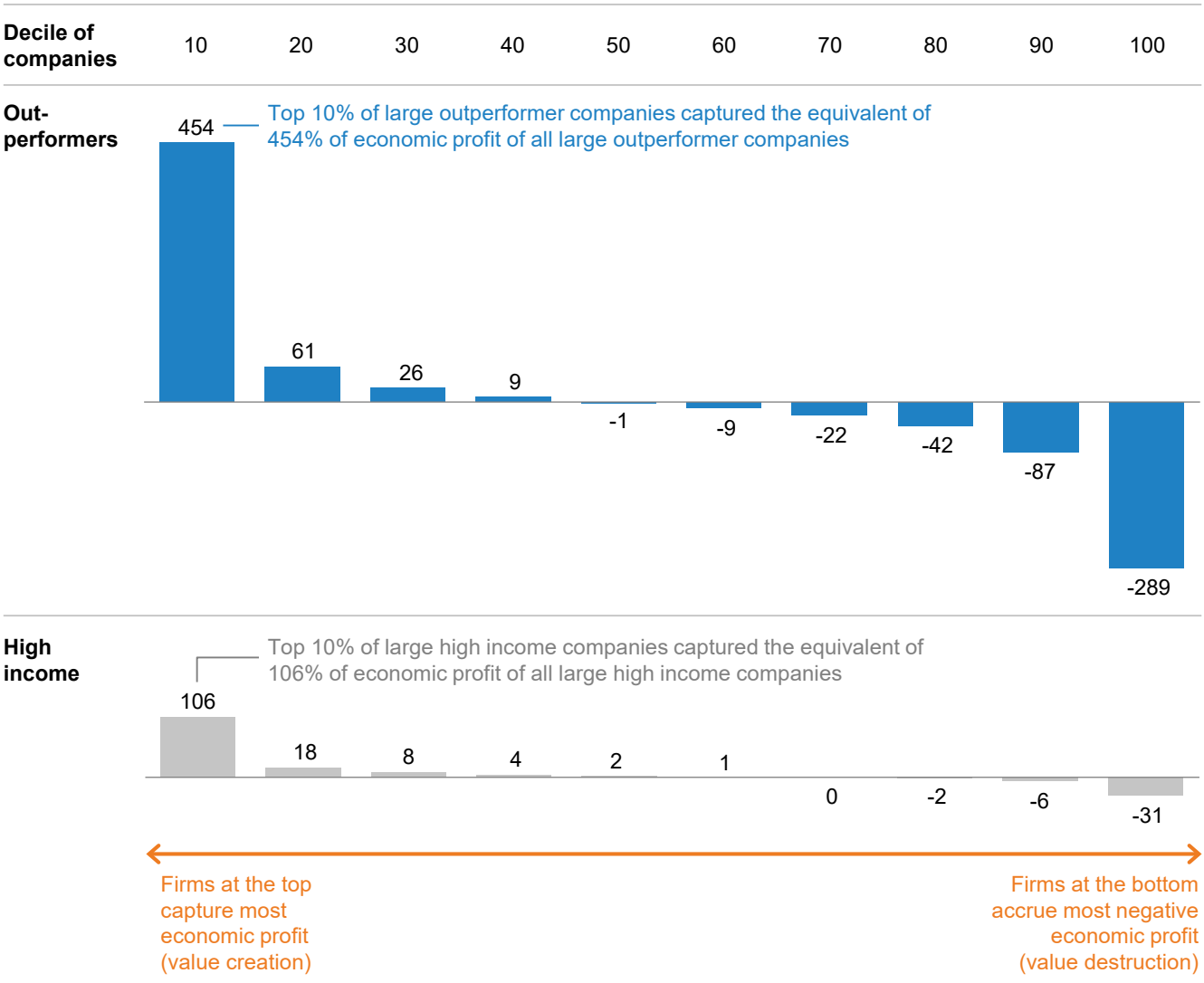
High stakes: Top companies in developing economies reap outsize rewards for success (and outsize value destruction for failure)

To better understand the role of competition in outperformer economies, we reviewed the ability of large companies to generate and maintain economic profit over the past 15 years. In the 18 outperformer economies, the incentives for companies to be the best in their fields are significantly higher than in advanced economies. The top 10 percent of large firms in terms of value creation captured more than four times the net economic profits generated by all companies in outperforming economies, 454 percent of the total, compared with 106 percent captured by their top 10 percent of peers in high-income economies (Exhibit 17).

Exhibit 17

Top emerging market firms capture a disproportionate share of economic profit.

Share of total large-company economic profit pool captured by each decile of companies, 2001–15[1]
% (sum of annual average) (N = 28 countries, 2,059 companies[2,3])



1 Economic profit defined as net operating profit less adjusted taxes (NOPLAT) – [Invested capital x weighted average cost of capital]. Economic profit pool defined as the sum of average annual economic profit of each company in sample; weighted average across countries within archetype.
2 Outperformers include China, Hong Kong, India, Indonesia, Malaysia, Singapore, South Korea, and Thailand. High income includes Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Israel, Italy, Japan, Netherlands, Norway, Saudi Arabia, Spain, Switzerland, United Arab Emirates, United Kingdom, and United States. Non-outperformer emerging economies excluded due to negative economic profit pool in time period.
3 Publicly listed companies with more than $500 million in revenue in 2016.

SOURCE: McKinsey Strategy Practice (Beating the Odds model v20.0); McKinsey Corporate Performance Analytics; McKinsey Global Institute analysis

The penalty for failure is also steeper, with the bottom 10 percent of firms in outperformer economies accruing negative profits equivalent to 289 percent of the net economic profits of outperformer companies. That compares with high-income firms, in which the bottom 10 percent accrue negative profits equivalent to 31 percent of their respective profit pool.

Being an average firm in high-income economies is sustainable: only the bottom 30 percent of companies generated economic losses between 2001 and 2015. That is not the case in outperformer economies, where only the top 40 percent of firms managed to make economic profit or break even, and 60 percent generated losses.

LEADING EMERGING-MARKET FIRMS INNOVATE AND INVEST MORE BOLDLY THAN HIGH-INCOME PEERS, AND THEIR GEOGRAPHIC EXPANSION IS MORE AGGRESSIVE

The survey we conducted of about 2,000 executives across different industries and regions provides insights into what distinguishes these high-flying firms. Innovation, investment, and geographic expansion emerge as key differentiators.

Innovation stands out as a key characteristic of top firms in emerging economies

Companies in the top quartile of revenue growth in the outperforming economies derive 56 percent of their revenue from new products and services, 12 percentage points more than the average for all companies in advanced economies and eight percentage points above the average for top-performing firms in advanced economies.[124]

Competition-driven innovation is apparent in a broad range of sectors, including some not often associated with cutting-edge practices, including construction, energy, and other infrastructure-related industries. In the construction sector, for example, standardization and procurement and supply-chain management can vastly improve productivity, as can clever design and novel techniques. Broad Sustainable Building, a prefab construction firm based in China, can erect a 30-story hotel in 15 days using repeatable design elements and modular methods.[125]

Our survey suggests that top emerging market companies are 12 percentage points more likely than their advanced-economy peers to encourage experimentation, ten percentage points more likely to explore new sources of profit, and eight percentage points more likely to rapidly roll out new products or services that prove successful. Moreover, more than half of top outperformer firms either initiate disruptions or change their long-term strategies to address technological disruptions, far ahead of top firms in advanced economies. They are almost 20 percentage points more likely to have reallocated their best employees and resources toward digital and technological initiatives than peers in advanced economies, a difference that grows to more than 30 percentage points in the manufacturing sector.

[124] Percentage of sales coming from new products or services in the previous three years.

[125] *Reinventing construction: A route to higher productivity*, McKinsey Global Institute and McKinsey's Capital Projects and Infrastructure Practice, February 2017, on McKinsey.com.

This penchant for innovation and embracing technological change can be found in myriad examples across the outperforming economies we identified.

- In Africa, the Chinese phone manufacturer Transsion has become the leading brand of smart and feature phones by making handsets that not only are affordable but can accommodate up to four SIM cards to let customers in many African countries avoid the high cost of calling someone who uses a different mobile provider. Transsion's ability to localize its products also extends to the Indian market, where it has grown to be the third-largest brand in the span of a year.[126]

- In India, Asian Paints, a leading paint and home decoration company, uses customer data to optimize inventory management and logistics through a demand forecasting platform—and offers customers a personalized experience on its digital platforms.[127]

- In China, Jiangsu Hengrui Medicine, a leading manufacturer and distributor of pharmaceuticals and health products, develops drugs through risk-sharing licensing agreements with foreign multinational companies, thus limiting potential losses in R&D investments. Other companies consider their entire labor force to be an informal research initiative.

- Axiata, a leading Malaysian telecommunications group with 320 million subscribers across ten Southeast Asian countries, proactively invests in digital disruptions. It established a 100 million Malaysian ringgit ($25 million) venture capital fund to help it anticipate and respond to challenges from digital disruptors and a growing crowd of competitors. So far, the Axiata Digital Innovation Fund has invested in 29 companies in seven business areas including digital advertising and streaming-content services.

- In Chile, retailer Falabella uses customer spending data from its financial services division, which provides a broad array of financial services to its customers, to manage its inventory more nimbly and site new stores.

Innovation by large firms has catalyzed the growth of innovation clusters in outperformer economies. Some regions and cities in countries such as China, India, and South Korea are particularly accomplished at birthing and nurturing innovation, according to our analysis of data from the US Patent and Trademark Office and the European Patent Office, which represent almost 50 percent of patents granted globally.[128] These states and metropolitan areas generate an exceptional number of patents.

Seoul had the largest number of patents granted in 2015 of any cluster outside the United States—five times as many as Paris, for instance. The number of patents granted annually in Bangalore, Beijing, and Shanghai between 2008 and 2015 grew more than twice as fast as in Silicon Valley, the largest cluster globally. In fact, around 80 percent of Chinese and Indian cities we analyzed increased their number of patents by double digits annually over this period, while only around 30 percent of US cities managed to do so. We also see nascent innovation clusters emerging in Istanbul, Warsaw, and other cities in developing economies (Exhibit 18). While still small in volume, the number of patents granted to companies and individuals in these cities is growing about 20 percent a year.

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[126] Li Tao, "How an unknown Chinese phone maker became No 3 in India by solving the oily fingers problem," *South China Morning Post*, January 12, 2018, scmp.com.

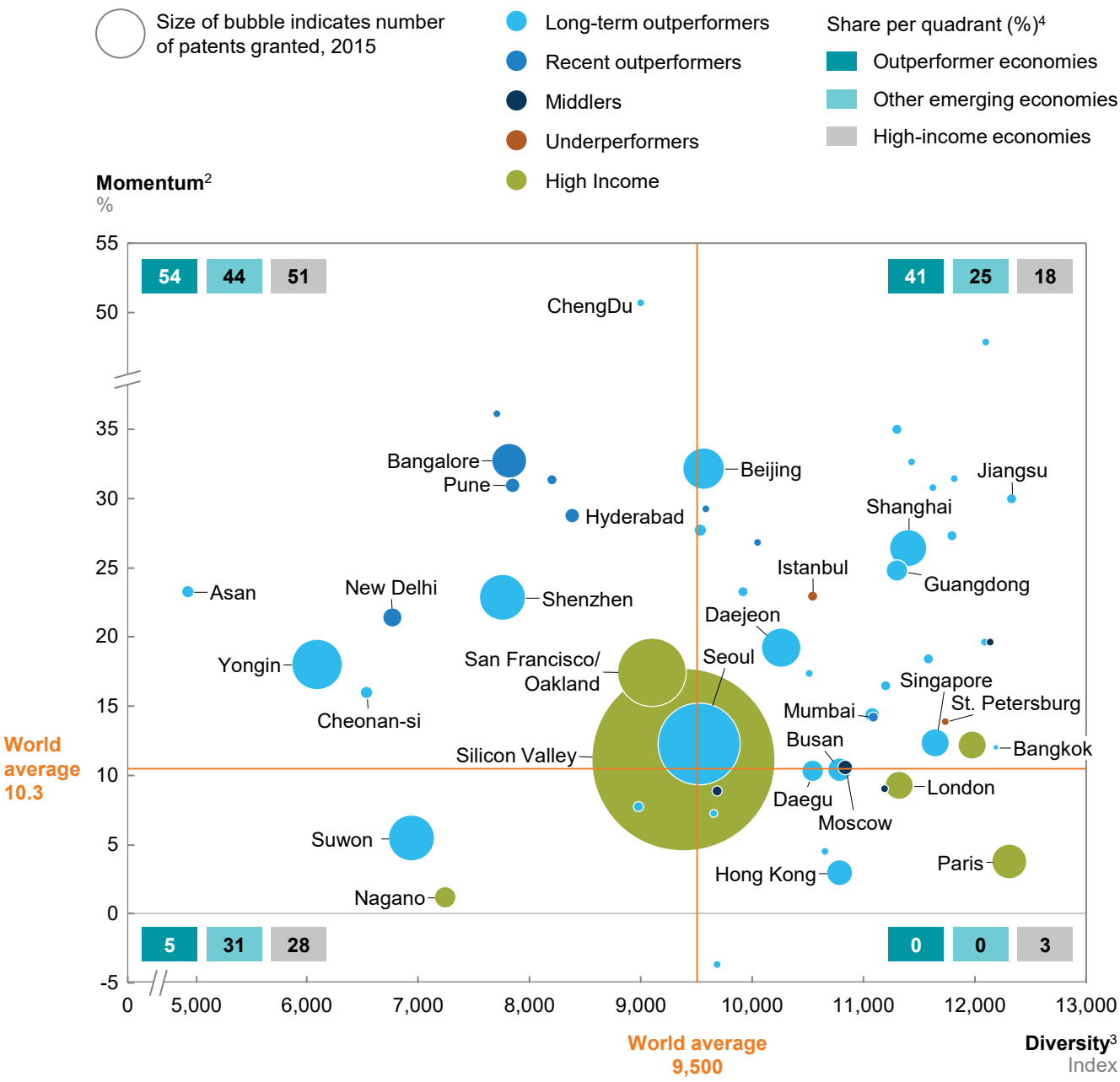
[127] Sneha Jha, "How Asian Paints leveraged digital innovations to become customer centric," *Economic Times* (ETCIO), August 16, 2017, img.economictimes.indiatimes.com.

[128] Relative sizes of the USPTO and EPO are from *IP5 Statistics Report 2016*, USPTO, November 2017. Patent data do not always reflect innovation output, as many innovations, especially business model innovations, are not patentable. Nevertheless, it is commonly used as an indicator for quantifying innovation capacity at a city or country level.

Exhibit 18

Large innovation clusters are surfacing in several outperforming developing economies.

Selected clusters, 2006–15[1]



1 "Innovation clusters" can be defined as cities, metropolitan areas, or states/provinces that generate an exceptional number of patents; not exhaustive list of geographies.
2 Compound annual growth rate of the number of patents granted by US Patent and Trademark Office and European Patent Office, 2008–15.
3 Sum of corporate diversity and industry diversity of patents granted.
4 Share per quadrant = (Sum of patents granted to clusters of this archetype in that quadrant) / (Total patents granted to clusters in that quadrant).
NOTE: Figures may not sum to 100% because of rounding.

SOURCE: Clarivate Analytics; geospatial analysis; McKinsey Global Institute analysis

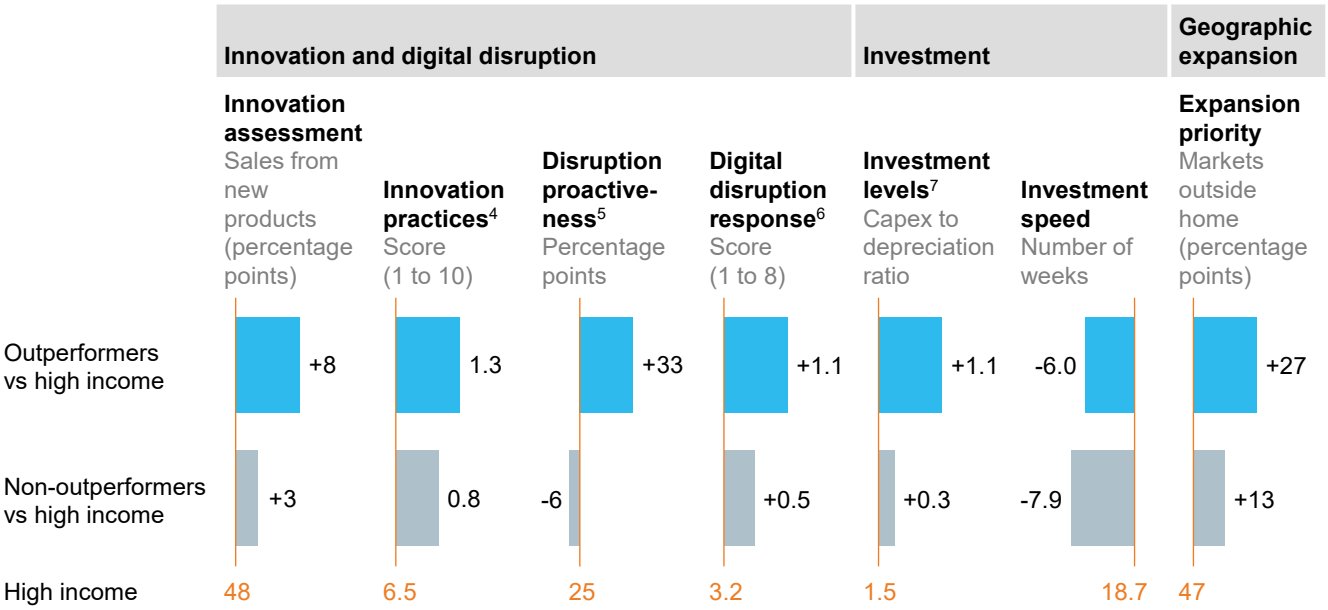
Investment strategies and practices of leading emerging-economy firms can be bolder and nimbler than those of companies in advanced economies

Another outstanding characteristic of successful emerging-market firms is their investment strategies, which can be bolder and nimbler than those of companies in advanced economies (Exhibit 19).

Exhibit 19

Top firms in outperformer economies are bolder, quicker, and more forceful than their peers.

Comparison of self-reported performance and practices for top-performing firms across archetypes[1,2]
Absolute difference compared to top-performing firms from high-income economies
N = 7 countries, 2,172 companies[3]



1 Top-performing defined as top quartile of self-reported revenue growth (over past 3 years) adjusted for country and industry.
2 All reported statistics are calculated as weighted averages across countries within archetype.
3 Outperformers include China, India, and Indonesia; non-outperformer emerging economies include Brazil and South Africa; high income includes Germany and the United States.
4 Score marks number of dimensions for which respondent answered either “Strongly agree” or “Agree” among 10 dimensions that describe the company’s current innovation capabilities and practices.
5 Proactiveness measured as answering either "We have changed our longer-term corporate strategy to address the disruption” or "We initiated the disruption(s)” to question “Which of the following statements best describes your company’s approach to addressing the technological and digital disruptions that have affected your industry in the past three years?"
6 Score marks number of “changes [made] to the strategy of individual business units…in response to technological and digital disruptions that have affected your industry in the past three years.”
7 Based on financial data for large publicly listed companies with more than $500 million in annual revenue; top performing defined as top quartile in terms of total return to shareholders adjusted by industry.
NOTE: Not to scale.

SOURCE: McKinsey 2017 Firm Survey; McKinsey Corporate Performance Analytics; McKinsey Global Institute analysis

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Outperformer firms invest almost twice as much as comparable businesses in advanced economies, when investment is measured as a ratio of capital spending to depreciation. This is not simply a function of industry mix, because the gap holds across a variety of industries, such as auto and assembly, construction and real estate, pharmaceuticals, and wholesale and retail trade. Even in other sectors, such as high tech and telecommunications, investment rates at top outperformer firms are comparable to those for companies in advanced economies.

The attractiveness of markets in outperformer economies has driven investments even in highly capital-intensive industries with large barriers to entry. In India, for example, Reliance Jio, a mobile network operator that launched in September 2016, has already invested $30 billion in its one-of-a-kind fourth generation (4G) VoLTE mobile network, leapfrogging incumbents that were gradually transitioning out of older technologies.[129] In less than two years of operations, Reliance Jio has become the third-largest telecom operator in India by market share.

Some companies are making big bets not to fend off short-term competition, but to anticipate long-term opportunities. China's Contemporary Amperex Technology has become a leading global manufacturer of batteries for electric and hybrid vehicles and will finance expansion with more than $800 million it raised in an initial public offering in June 2018.[130] The firm is not alone in its massive investments: Chinese companies have a pipeline of planned battery plants with a total capacity of 130 GWh, more than triple the capacity of planned battery plants in the rest of the world combined (42 GWh).[131]

These companies not only make big bold investments; they make them faster. Top emerging-market companies take about six to eight weeks less to make important investment decisions than similar companies in advanced economies, a difference of 30 to 40 percent. This nimbleness is often critical for success. One example is Xiaomi, a Chinese consumer electronics manufacturer founded in 2010 and one of the five largest smartphone makers in the world.[132] Xiaomi operates with a three-tier organizational structure that keeps senior managers close to front-line engineers, ensuring that strategic decisions can be made quickly and giving autonomy to team leads to make product and operational decisions.[133]

Outperformer companies can have aggressive geographic expansion plans

The most successful large outperformer companies are also significantly more likely than their peers in high-income countries to prioritize geographic expansion outside their home markets—a full 27 percentage points more likely, according to the results of our survey. Outperformer companies also are 13 percentage points more likely than other emerging market-based firms to prioritize expansion abroad, especially in other developing economies, where growth is fastest.

CP Group is a good example. The Thai conglomerate, focused on agribusiness real estate, retail, and telecommunications, was the first foreign investor in China's first special economic zone in Shenzhen in 1981; today, its Chinese businesses account for a significant portion of its annual sales of $40 billion to $50 billion.[134]

Ethiopian Airlines, the largest airline in Africa, has focused on expanding geographically through acquisitions and strategic partnerships. Ethiopian, which earned $273 million in profit in 2015–16 while the African airline industry at large lost $900 million, has in recent years bought large stakes in Malawian Airlines (49 percent) and Zambia Airways (45 percent)

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129 Promit Mukherjee, "Reliance lifts Jio investment above $30 billion after record year," Reuters (India Edition), April 25, 2017, in.reuters.com.

130 David Stanway and Jennifer Hughes, "China battery maker CATL closes limit-up on stock market debut," Reuters, June 10, 2018.

131 Jie Ma et al., "The breakneck rise of China's colossus of electric-car batteries," *Bloomberg Businessweek*, February 1, 2018, bloomberg.com.

132 Yue Wang, "Xiaomi is once again among the world's biggest smartphone brands—but could it go further?" *Forbes*, August 8, 2017, forbes.com.

133 Yu-Feng Lin Lee, "When Google meets Xiaomi: Comparative case study in Western and Eastern corporate management," *Journal of International Technology and Information Management*, 2014, Volume 23, Number 5.

134 Usanee Mongkolporn, "New Charoen Pokphand CEO unveils 'CP 4.0' plan," *The Nation*, February 24, 2017.

while also teaming with the Guinean government to start Guinea Airlines and with ASKY Airlines in Togo.[135]

An aggressive acquisition strategy is also behind the success of Grupo Bimbo, a Mexican bakery product company with operations in 22 countries in the Americas, Europe, and Asia. Bimbo has consistently relied on acquisitions to enter new markets, acquiring companies' brand names and local market savvy. Bimbo's acquisition activity has focused primarily in the United States, where it owns six of the 12 largest bread brands, but it also has expanded aggressively in Argentina (where it owns the Fargo brand), Brazil (Plus Vita, Pullman, and Nutrella), and Canada (Canada Bread), as well as in China.

One large-scale example is the growing presence of Chinese firms in Africa. That continent is a major driver of south-to-south trade—shorthand for trade among emerging economies, even if they are not in the Southern Hemisphere—and it is attracting large numbers of companies from the outperformer economies. Previous McKinsey research estimates that more than 10,000 Chinese companies have a presence in Africa, 3.7 times the number previously estimated. These firms are the greatest international contributors to Africa's infrastructure sector and are responsible for 12 percent of manufacturing in the continent. For these companies, growth in south-to-south trade represents a lucrative opportunity: nearly one-third of them report profit margins over 20 percent, and 74 percent of them are optimistic about the future of the region. However, their presence is also crucial for the development of local economies: on average, 89 percent of their employees are African, 50 percent have introduced new products to their markets, and 47 percent of their inputs were sourced from local firms.[136]

Leading outperformer firms challenge their peers in advanced economies

Emerging market firms are making an increasingly large mark on global business. Hundreds of the best companies are building on their domestic success to challenge incumbents from the United States, Europe, and other advanced economies, at times on their home turf.

For example, AmorePacific, a South Korean cosmetics manufacturer, successfully launched its "cushion compact" product mixing skincare, foundation, and sunscreen in the United States. Product development required 3,600 tests and involved 26 patents. By 2016, AmorePacific, which has established 66 luxury retail outlets in the United States, had sold over 100 million cushion compacts and driven other global brands such as Dior, Estee Lauder, Lancôme, and MAC Cosmetics to follow suit.[137] Another example is Discovery Group, a South African health and life insurer, which created Vitality, a program that closely tracks customers' physical activity and eating habits, and rewards them for good behavior. This business model innovation has now gone global through partnerships with insurance carriers across the United States and Europe.[138]

The numbers are striking: Large public companies from the 18 outperforming developing economies contributed about 40 percent of global revenue and net income growth among all large public companies from 2005 to 2016, even though they accounted for only about 25 percent of total revenue and net income for large public companies in 2014 to 2016 (Exhibit 20).

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[135] *Ethiopian becomes strategic partner in new Malawi airlines*, Ethiopian Airlines press release, July 13, 2013, ethiopianairlines.com; Tom Collins, "Ethiopian Airlines on the up," *African Business Magazine*, August 8, 2017, africanbusinessmagazine.com; and Abdi Latif Dahir, "How Africa's largest airline will dominate the continent's skies," *Quartz Africa*, January 20, 2018, qz.com.

[136] *Dance of the lions and dragons*, McKinsey & Company, June 2017.

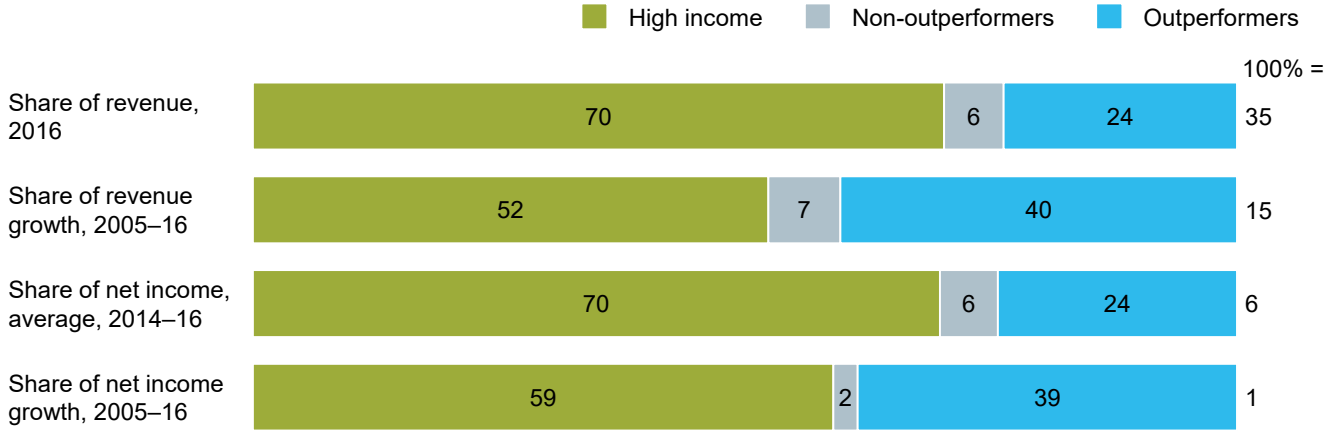
[137] Won Ho-jung, "AmorePacific sells over 100 million cushion compacts," *Korea Herald*, November 21, 2016.

[138] Adrian Gore, "How Discovery keeps innovating," *McKinsey Quarterly,* May 2015.

Exhibit 20

Firms from outperformer economies captured about 40 percent of global revenue and profit growth between 2005 and 2016.

%; $ trillion (N = 27 emerging economies, 6,715 companies[1,2])



1 Outperformers include China, Hong Kong, Indonesia, India, Malaysia, Singapore, South Korea, and Thailand; non-outperformers include Argentina, Brazil, Egypt, Mexico, Nigeria, Pakistan, the Philippines, Poland, Russia, South Africa, Turkey, and Venezuela; high income includes Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.
2 Publicly listed companies with more than $500 million revenue in 2016.
NOTE: Figures may not sum to 100% because of rounding.

SOURCE: McKinsey Corporate Performance Analytics; McKinsey Global Institute analysis

Moreover, the world's largest corporations are increasingly located in developing economies—more than 120 outperformer companies have joined the Fortune Global 500 list since 2000. Most of these new entrants—95—are from China, and almost all of them are joining the ranks of the world's largest firms at a much earlier stage than companies in Europe, Japan, or the United States have done. For example, the average age of a company in the Fortune list is 86 years for a US firm, compared with 51 years for a South Korean company and 32 for a Chinese one.

WITH THEIR STRONG PERFORMANCE, HIGH-FLYING EMERGING-MARKET FIRMS ADD VIBRANCY TO THEIR BROADER ECONOMIES

The best large companies in the outperforming economies rank among the best in the world based on shareholder returns. Their success in turn feeds into their home economies, adding vibrancy and acting as a catalyst for change for smaller companies.

The shareholder returns of developing-economy firms often outpace those in advanced economies

Many firms from the outperforming economies are growing faster and providing higher shareholder returns than their peers in advanced economies. Companies ranked in the top quartile in terms of total return to shareholders delivered average returns of 23 percent from 2014 to 2016, compared with 15 percent for high performers in advanced economies.[139]

In terms of revenue, the compound annual growth rate of the developing country highfliers is considerably higher than—more than triple—that of leading firms in advanced economies. Since emerging-economy firms tend to focus on growth rather than maximizing profit, however, their return on invested capital is lower (Exhibit 21).

[139] We use total return to shareholders as our indicator of company performance because it contains information about current value creation and changes in expectations of future performance, making it a more holistic indicator than other metrics.

Exhibit 21

Top firms in outperformer economies have higher total return to shareholders and revenue growth than top firms in other economies.

Key indicators between 2005 and 2016
% (N = 27 economies, 5,056 companies[2,3])

1 Top quartile is defined based on the average total return to shareholders over the last five years.
2 Outperformers include China, Hong Kong, Indonesia, India, Malaysia, Singapore, South Korea, and Thailand; non-outperformer emerging economies include Argentina, Brazil, Egypt, Mexico, Nigeria, Pakistan, Philippines, Poland, Russia, South Africa, Turkey, and Venezuela; high income includes Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.
3 Publicly listed companies with more than $500 million revenue in 2016.

SOURCE: McKinsey Corporate Performance Analytics, McKinsey Global Institute analysis

MGI research has found that emerging-economy firms can pursue longer-term strategies than their advanced-economy competitors to build leading positions, such as by prioritizing revenue growth over short-term profits. Chinese firms, for example, have grown four to five times faster than Western firms in the past decade, but their margins fell by more than five percentage points on average.[140]

Big firms are catalysts for change, introducing tech and best practices to suppliers

Emerging economies often have unique challenges created by a lack of infrastructure, limited institutions, and reduced supply of key services and goods. Although these limitations can stunt the creation and growth of companies, they also represent valuable opportunities. Some of the high-flying firms in outperforming economies are acting as catalysts for change, through vertical integration and capability building of suppliers. In some cases, they are also bringing valuable foreign direct investment—and a focus that can go beyond the purely economic (see Box 6, "Linking success to social impact and sustainability").

[140] *Playing to win: The new global competition for corporate profits*, McKinsey Global Institute, September 2015, on McKinsey.com.

Box 6. Linking success to social impact and sustainability

Investor interest in socially responsible investment has surged in recent years, indicating that the importance of environmental, social, and governance considerations will only grow for outperformer firms. Investment processes that incorporate these factors are becoming more widespread among global asset managers. Sustainable investing had $23 trillion in global assets under management in 2016, according to an estimate by the Global Sustainable Investment Alliance. Developing economies still have some way to go on this dimension: just 12 emerging-market firms figured in the Global 100 index of the most sustainable corporations in the world compiled by *Corporate Knights*, a magazine focused on sustainability and responsible business.[1]

However, some companies are already linking their success to sustainability. A prime example is ACLEDA, Cambodia's largest bank and one of its largest companies. ACLEDA was started as a microfinance nongovernmental organization, an offshoot project of a local development agency supported by the UN Development Programme. In a country racked by civil war, with citizens wary of financial institutions and even the national currency (it had been disbanded and reissued before), ACLEDA's focus on building trust and engaging in financial education and inclusion were crucial in building the banking sector. As ACLEDA transitioned into a for-profit entity, it retained its values of sustainability, inclusion, transparency, and social responsibility.[2]

One major area of focus for asset managers across geographies is the impact of firms on climate change and carbon emission. Investment managers who said they sought low-carbon or climate-resilient investments accounted for 47 percent of assets managed by signatories to the UN-sponsored Principles for Responsible Investment, in 2016. This coincides with higher focus on renewable energy, and technology-led sustainable businesses among emerging-market firms across Africa, Brazil, China, and India.

Since the global financial crisis, several developing economies have implemented reforms to strengthen corporate governance and investor protection, recognizing their link to depth of markets and financial stability.[3] More will be needed on this front, through both regulatory and firm-level actions, for corporations in developing economies to continue to attract capital on advantageous terms. The imperative to improve data disclosure and transparency is particularly strong for small and medium-size enterprises.

1 "Global 100 world's most sustainable corporations," *Corporate Knights*, January 2018.
2 Raymond Madden, Wan Nursofiza Wan Azmi, and Marsyitah Ismail, *A case study on ACLEDA Bank Plc: Making commercial microfinance work in Cambodia*, Asian Institute of Finance, 2015.
3 "Fostering stability in a low-growth, low-rate era," *Global Financial Stability Report*, International Monetary Fund, October 2016.

Yoma Strategic Holdings, for instance, began in 1992 as a real estate developer in Myanmar, where it set up the country's first gated community. Given the lack of suitable contractors for key functions required to operate its properties, Yoma expanded its operations to provide security, landscaping, and other functions that real estate companies would typically outsource. It eventually expanded to provide these services to third parties, and then spun off these businesses into separate companies. Yoma also ventured into banking, establishing one of Myanmar's largest mortgage lenders to serve people wanting to buy its homes. Later, Yoma also founded a construction joint venture with an established Singaporean builder, further integrating vital functions into its property development and management businesses. Yoma Strategic Holdings is now a conglomerate, with interests in real estate, agribusiness, retail, and other fields.[141]

In Mozambique, the country's largest company and Africa's second-largest aluminum smelter, Mozal, has been a key driver of the economy, generating close to 30 percent of exports and 53 percent of foreign exchange, as well as direct and indirect employment and supply-chain spillovers. Mozal was founded in 1998 as a joint venture between foreign companies with a small 4 percent share held by the Mozambique government, part of its economic recovery efforts. Mozal's growth has had a significant impact on the nation's infrastructure, and the company has been responsible for a port expansion and the

141 Seung Ho Park, Gerardo Rivera Ungson, and Jamil Paolo S. Francisco, *ASEAN Champions: Emerging Stalwarts in Regional Integration*, Cambridge, UK: Cambridge University Press, 2017.

development of an industrial park near its capital and largest city, Maputo. However, there is still untapped potential for Mozal to drive local infrastructure investment. The company, which consumes four times as much electricity as the rest of the country, must import its electricity from South Africa.[142]

On a smaller scale, Dao-Heuang Group began in 1991 as an import-export company in Laos, but quickly ventured into coffee production, roasting, packaging, and distribution across the Association of Southeast Asian Nations region and the world. Facing the challenge of a fragmented and underdeveloped coffee-growing sector, Dao-Heuang built its own supply source, creating a model of contract farming that provided farmers with coffee trees, as well as business and agricultural technical expertise. Dao-Heuang has become a leading coffee producer and one of the largest firms in the country.[143]

•••

The best-performing companies in outperforming developing countries are world beaters. As well as powering the growth and productivity of their domestic economies, they are increasingly taking on Western incumbents and often delivering better shareholder returns. Their embrace of innovation and technological change, their nimble and bold investment decisions, and their appetite for geographic expansion have propelled them onto the world's corporate stage. Such behaviors did not come about through chance: they were forged at home, in an ultracompetitive domestic environment in which contested leadership is intense and far stronger than it is even in many advanced economies. Yet no outperforming company, or outperforming economy, can rest of its laurels. The global economy is undergoing some significant transitions, creating significant opportunities but also challenges, that future outperformers will need to navigate successfully.

[142] "Mozambique's Mozal smelter expansion on course, but electricity is needed," *Further Africa*, February 13, 2017, furtherafrica.com.

[143] "Dao Heuang coffee to penetrate Chinese market," *The Laotian Times*, May 2, 2018; "Coffee giant Dao-Heuang owes 27 billion kip to Lao farmers," *The Laotian Times*, June 27, 2017.

Robot serving in a bank in Nantong, China.
© ZUMA Press, Inc./Alamy Stock Photo

4. NEW OPPORTUNITIES FOR EMERGING ECONOMIES IN CHANGING TIMES

Some of the external conditions that helped the 18 outperformers achieve their growth are changing. Manufacturing, one essential path for their development, seems to be peaking in emerging economies earlier than it used to. The dynamic expansion of cross-border flows of goods, services, and finance that was a significant driver of growth came to a halt after the 2008 global financial crisis, and trade growth remains weak, even as the specter of protectionism looms larger. Moreover, the rise of automation and artificial intelligence is already disrupting established patterns of business and commerce, challenging companies and economies as these technologies stir debate about the future of work.

What prospects, then, for the 53 other emerging economies hoping to emulate the outperformers? Without playing down the significance of the changing environment, we nonetheless see continuing opportunities for emerging economies to turn these trends to their advantage and excel in both manufacturing and services. In this chapter, in keeping with our micro-to-macro research approach, we consider paths for future growth in a changing context with a closer look at prospects in six sectors, both manufacturing and services. We also conduct a thought exercise and simulation: what would happen to the global economy if all emerging economies could match the sustained productivity growth of the outperformers?

GLOBAL TRENDS MEAN NEW OPPORTUNITIES (AND CHALLENGES) FOR COUNTRIES SEEKING TO EMULATE THE OUTPERFORMERS

All emerging economies will have to navigate fundamental changes in the global landscape as they aspire to raise their level of performance. These changes include shifting patterns of trade and other cross-border flows; changing demographics and rising urbanization, which will influence consumption and growth; and the increased adoption of automation technologies, which could challenge some traditional development paths even as they potentially boost productivity and GDP growth.

Shifting trade patterns could open doors for economic growth

As noted in Chapter 2, increased global connectedness has been a distinguishing characteristic of outperforming emerging economies, whose openness to cross-border flows of goods, services, and finance has allowed them to tap into global demand. This is true not just of large countries including China, but also for smaller or lower-income economies that may be constrained by domestic spending power. Connectedness also allows companies to source inputs—whether raw materials, components, or capital—as well as technology and know-how at lower costs, enabling greater productivity growth.

However, the dynamic growth in flows took a body blow following the 2008 global financial crisis, from which it has barely recovered, and recent declines in global trade growth have raised questions about the continued prospects for emerging economies' growth. Globally, total exports grew from 21 to 31 percent of global GDP between 1995 and 2008, reaching almost $20 trillion of total nominal value at the end of that period. By 2016, however, the relative share of exports has fallen to 27 percent of global GDP, with declines across both developed and emerging markets. The greatest effect has been on exports of goods, which represented 25 percent of global GDP in 2008 but 21 percent in 2016. Global trade in services, on the other hand, grew from 4 percent of global GDP in 1995 to 6 percent in 2016.[144]

Reduced trade in resource-intensive commodities—a sector that includes the production of wood products, refined petroleum, mineral-based products, basic metals, and paper and pulp—has largely driven the recent decline in exports of goods. This sector's exports have declined from a nominal $4.8 trillion to $2.7 trillion over the past five years. In contrast, exports in some sectors—notably labor-intensive tradables such as textiles and technology products such as computers and electronics—are among the few manufacturing sectors with growing exports since 2011.[145] These also are sectors that have driven exceptional economic growth in many outperforming economies.

Global trade flows may be affected by rising protectionism.[146] The World Trade Organization estimates that between mid-October 2015 and mid-May 2016, G-20 economies introduced 21 new protectionist trade measures per month, the quickest pace since the 2008 financial crisis.[147] In Latin America, for example, there is concern about trade with the United States, the destination for 45 percent of Latin American exports and the origin of 32 percent of its imports. That proportion is considerably higher in Mexico, which faces the prospect of a renegotiation of the North American Free Trade Agreement and reduced opportunities for Mexican exporters. In 2015, 81 percent of Mexican exports and 47 percent of its imports were with the United States.[148]

In this cloudy global context for trade, we expect emerging economies to take a large role driving demand for goods and services. Recent MGI research showed that, for the first time in history, emerging economies participate in more than half of global trade of goods. Trade exclusively between developed nations represented 55 percent of global trade of goods in 1995 but only 33 percent in 2016.

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144 Data from the United Nations Conference on Trade and Development (UNCTAD) and IMF. While physical trade in goods and services and cross-border flows of finance have been slowing or declining, cross-border digital flows have grown 45-fold since 2005, *Digital globalization: The new era of global flows*, McKinsey Global Institute, March 2016, on McKinsey.com.

145 UNCTAD.

146 See, for example, Robert A. Manning, "Will global trade survive 2018?" *Foreign Policy*, January 5, 2018, foreignpolicy.com.

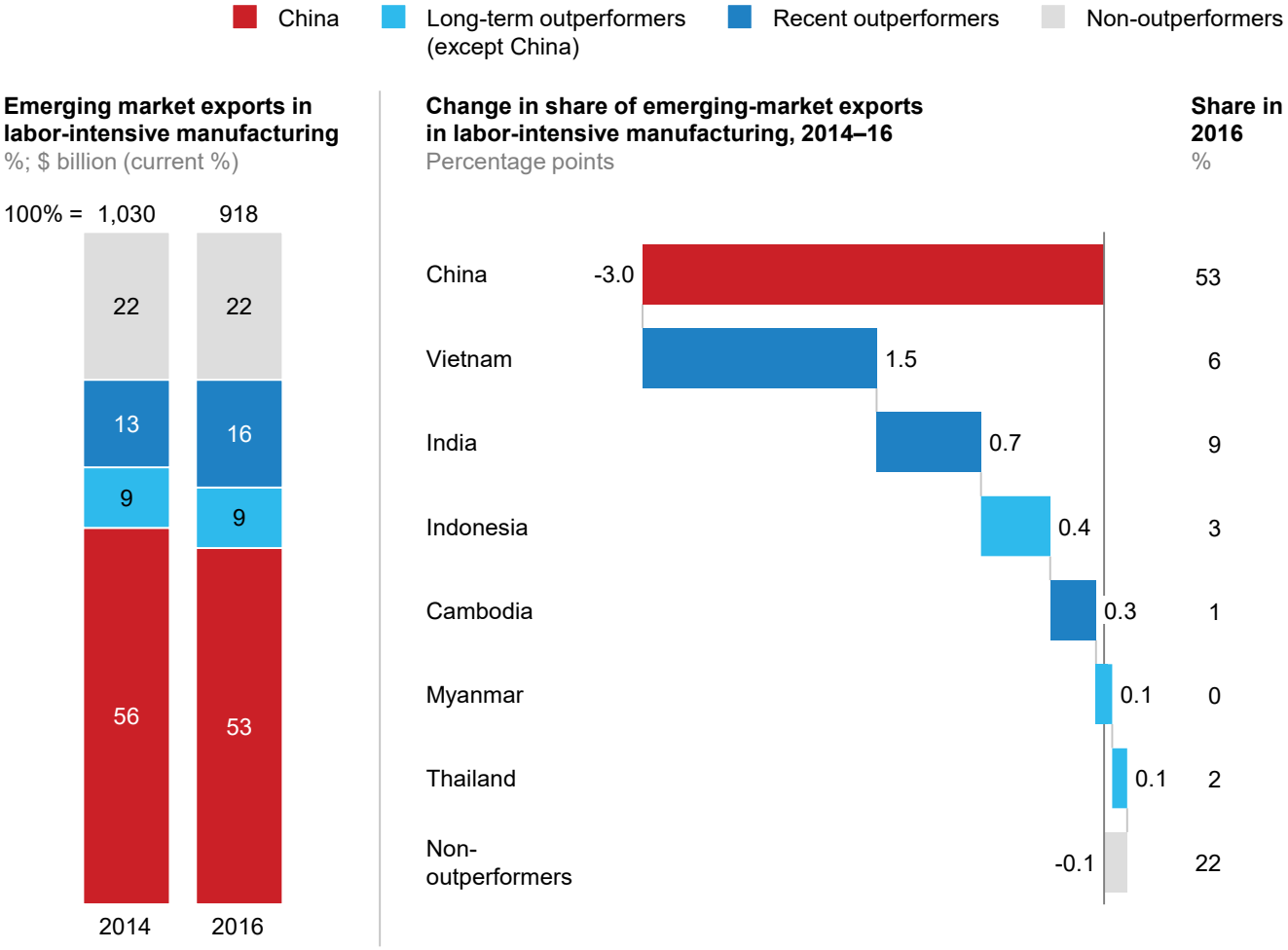
147 *Report on G20 trade measures,* World Trade Organization, June 21, 2016.

148 *Where will Latin America's growth come from?* McKinsey Global Institute, April 2017, on McKinsey.com.

In the future, other Asian countries such as Vietnam and India may have an opportunity to step into labor-intensive manufacturing, as China looks to increase R&D and capital-intensive manufacturing. China's share of emerging economies' labor-intensive manufactured exports increased continuously from 33 percent in 2000 to 56 percent in 2014, but declined to 53 percent in 2016. Between 2014 and 2016, for example, China's share of labor-intensive manufacturing exports declined by three percentage points—while Vietnam's rose by 1.5 percentage points (Exhibit 22). For now, this may be more of a signal than a strong trend, but is noteworthy nonetheless. As global trade is affected by multiple forces, this evolution will need to be tracked.

Exhibit 22

There are opportunities for Vietnam, India, and other emerging economies in labor-intensive manufacturing.



1 Global imports of goods; north and south defined as developed and emerging markets respectively.
NOTE: Other long-term and recent outperformers' share changed by 0.03% between 2014 and 2016; in 2016 their total was 4%. Figures may not sum to 100% because of rounding.

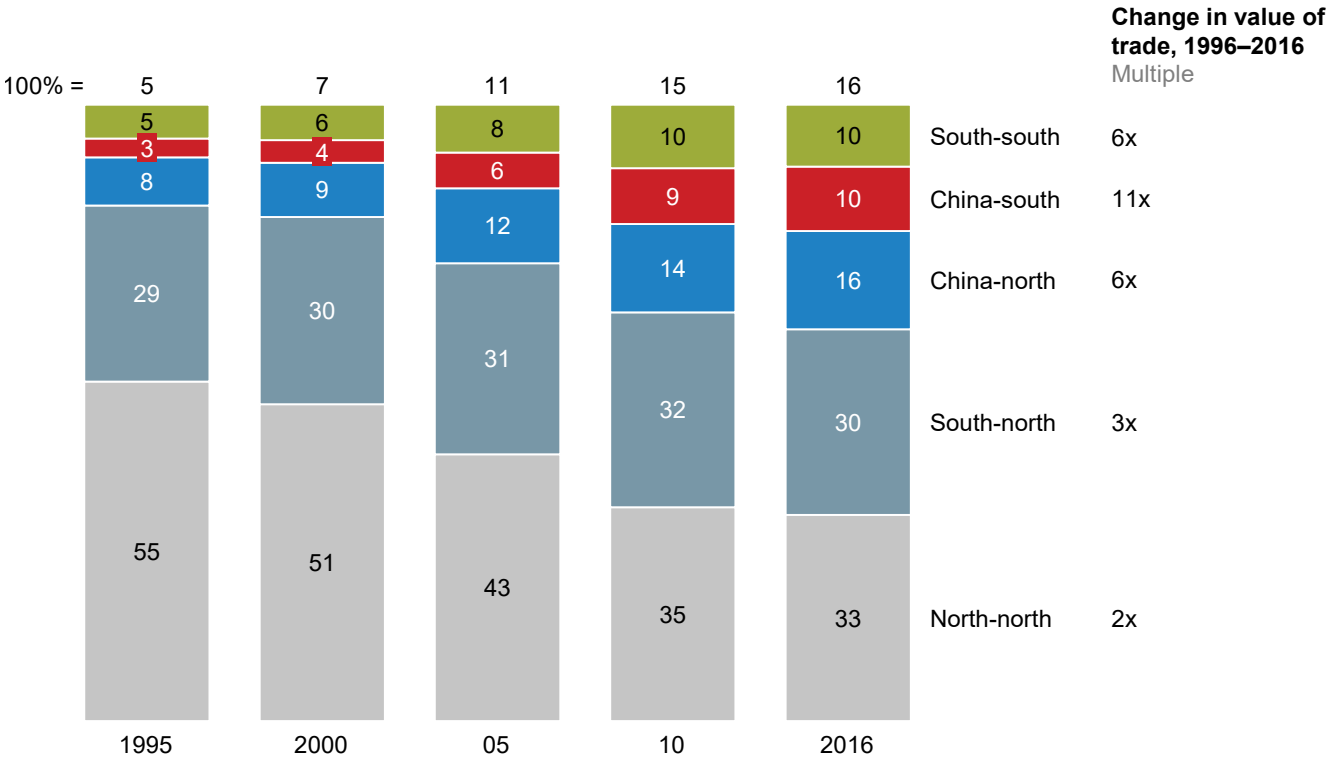
SOURCE: McKinsey Global Flows database 2.0; McKinsey Global Institute analysis

Such changes are fueling a rise in south-south trade, which is now growing faster than either north-south or north-north trade. China-south and south-south combined rose from 8 percent of global trade of goods in 1996 to 20 percent in 2016. The biggest change in value was from China-south trade, which has grown 11-fold in two decades (Exhibits 23 and 24). Overall, China has a $170 billion trade surplus with other emerging economies in labor-intensive manufacturing. However, this surplus is shrinking somewhat.

Exhibit 23

The share of goods trade among emerging markets (south-south and China-south) increased from 8 percent in 1995 to 20 percent in 2016.

Goods trade by development status[1]
%; $ trillion (current $)

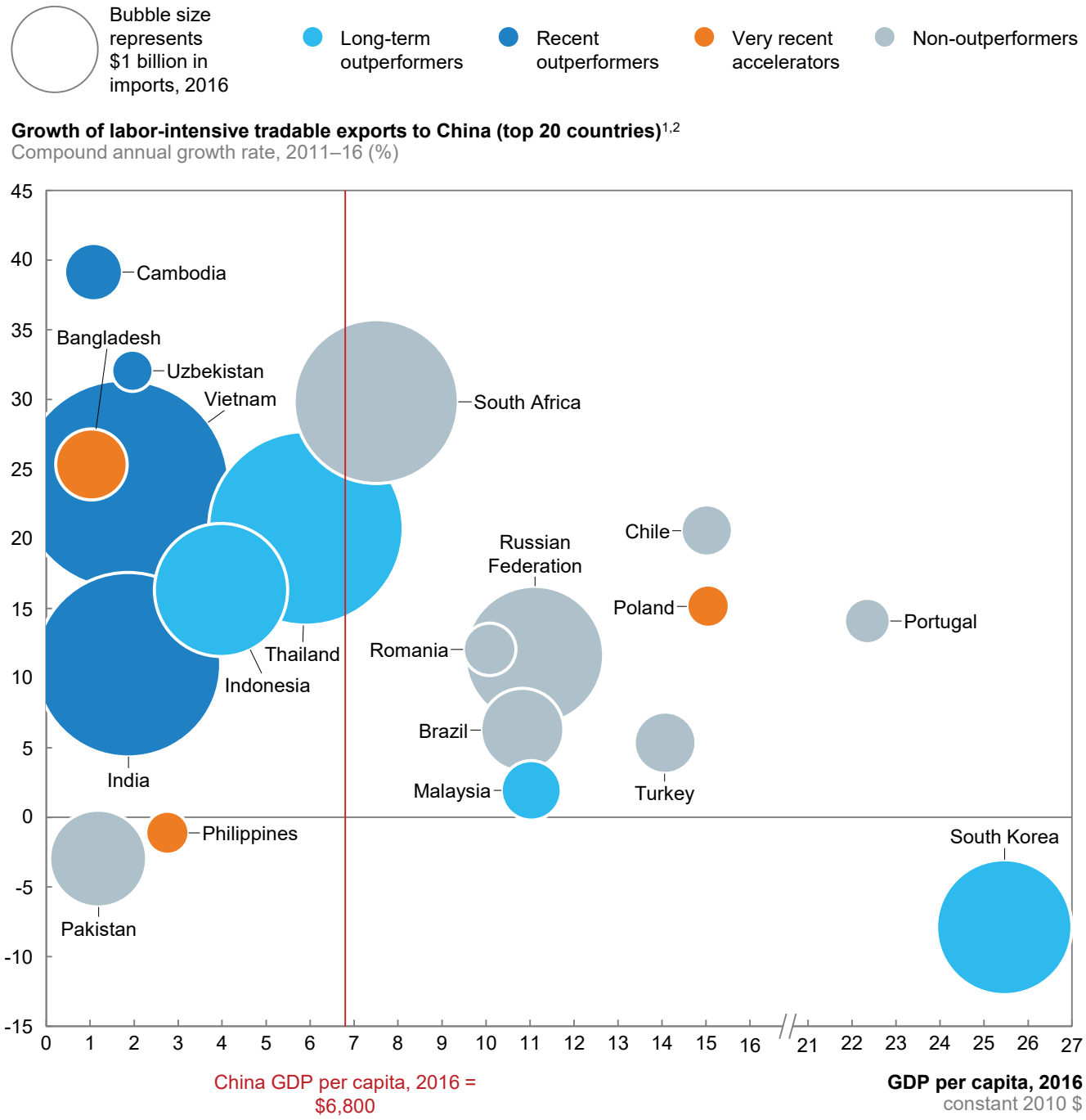


1 Global imports of goods; north and south defined as developed and emerging markets respectively.
NOTE: Figures may not sum to 100% because of rounding.

SOURCE: UNCTAD; McKinsey Global Institute analysis

Exhibit 24

China is importing more labor-intensive goods from low-income emerging economies, showing the relevance of south-south trade although it maintains a large trade surplus with these countries.



1 Labor-intensive goods includes textiles, apparel, leather, furniture, jewelry, and toys.
2 Top 20 countries by total exports of labor-intensive goods to China; excludes Hong Kong and Democratic People's Republic of Korea.

SOURCE: UNCTAD; World Bank World Development Indicators; McKinsey Global Institute analysis

Growing domestic consumer demand from urbanization is an opportunity at a time of demographic change

Demographic change is already affecting the global economy, with a decline in the working-age population in some countries such as Germany and Japan acting as a drag on growth. By 2030, there will be at least 300 million more people aged 65 years and above than in 2014.[149] As populations age and birth rates decline, this demographic drag could become stronger and put a greater onus on productivity growth to propel GDP growth.[150] At the same time, we see a powerful countertrend in the form of rising urbanization in emerging economies, which is boosting consumption as people move to cities and join the burgeoning consuming class.

Consumption in the long-term outperforming economies rose at a compound annual growth rate of 3.7 percent from 1980 to 2015; in China, the growth was twice as fast, at 7.8 percent annually. Consumption spending growth in recent outperformers has also been brisk, growing at a 4.0 percent annual average from 1995 to 2015. By comparison, consumption spending in advanced economies expanded at an annual average of 1.4 percent in the same period. Among non-outperforming emerging economies, it grew 1.6 percent annually for middling performers and just 0.7 percent for underperformers.

MGI research has shown that 440 cities in emerging economies will account for close to half of overall GDP growth by 2025, and one billion people will enter the global consuming class by then. They will have incomes high enough to classify them as significant consumers of goods and services, and around 600 million of them will live in these 440 cities.

We expect emerging economies overall to represent 62 percent of total global consumption growth between 2015 and 2030, the equivalent of $15.5 trillion, with 22 percent of that coming from China alone—a country that is also undergoing the aging phenomenon.[151] Indeed, China and India's growth in imports of manufactured goods to 2030 could surpass the import growth registered by the United States and Western Europe in the heady years of globalization in the 1980s and 1990s, according to our estimates, which underscore the growing importance of south-south trade.

Harnessing technology can lift productivity growth and competitiveness

Technology presents one of the most significant opportunities for emerging economies. Digital technologies are already creating new business models and markets across developing countries. Companies including M-Pesa in Kenya, which allows mobile money transfers, and Go-Jek, a motorcycle hailing application in Indonesia, have been among the digital pioneers. That may be just the start, as automation and artificial intelligence technologies are increasingly adopted in the workplace in coming years.

MGI research on the recent and rapid advances in technologies including digital, data analytics, automation, and artificial intelligence suggests that these technologies offer substantial opportunities to accelerate the growth of both productivity and per capita GDP, even as they affect the future of work. We estimate that the adoption of automation could boost productivity in developing economies by 0.8 to 1.2 percentage points a year from 2015 to 2030, which is already above the historical productivity growth of middling and underperforming countries.[152]

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[149] *Jobs lost, jobs gained: Workforce transitions in a time of automation*, McKinsey Global Institute, December 2017.

[150] *Global growth: Can productivity save the day in an aging world?* McKinsey Global Institute, January 2015.

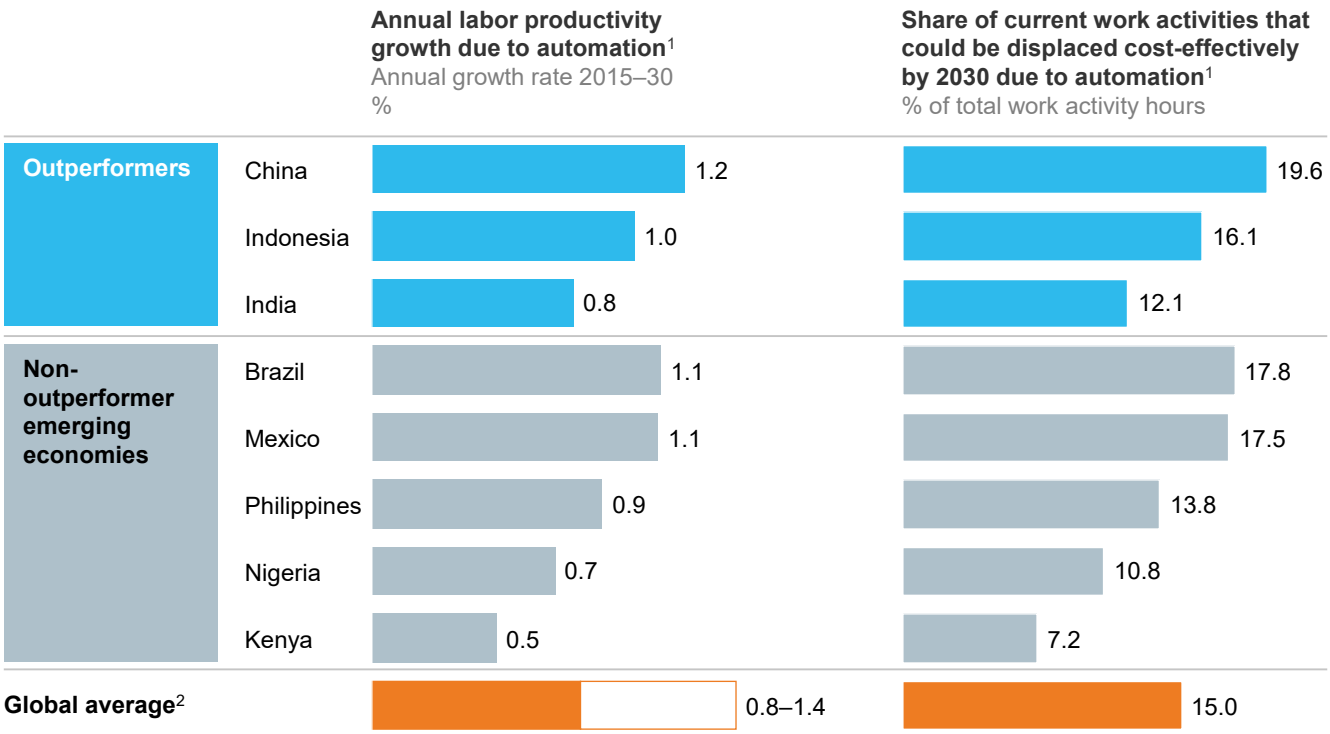
[151] *Urban world: The global consumers to watch,* McKinsey Global Institute, March 2016, on McKinsey.com.

[152] This estimate uses the midpoint adoption scenario from MGI's Automation Model as of March 2018. Midpoint adoption scenario refers to the average between the early scenario and the late scenario described in the report *A future that works: Automation, employment, and productivity*, McKinsey Global Institute, January 2017, on McKinsey.com.

Technical feasibility is a starting point for automation, but only one of several factors that will affect the pace and extent of adoption. Other factors include the cost of hardware and software solutions, social and regulatory acceptance, and labor dynamics such as the availability of labor and wage levels. This latter factor is especially significant in emerging economies, where the relatively lower wages may not justify the capital cost of new technologies. One consequence may be that adoption is slower than in some advanced economies.[153] Still, taking these factors into account, we estimate that the cost-effective adoption of automation technologies across manufacturing and service sectors in countries such as Brazil, China, Indonesia, and Mexico could increase overall productivity between 1.0 and 1.5 percentage points annually from 2015 to 2030 (Exhibit 25). In other countries, including India, Kenya, Nigeria, and the Philippines, automation could boost annual productivity between 0.5 and 1.0 percentage point.[154]

Exhibit 25

Automation could be a source of productivity in emerging economies.



1 Shows figures in midpoint scenario of automation adoption (previous MGI research defined a range of scenarios where midpoint shows the average).
2 Includes both developed and emerging economies; global average from *Jobs lost, jobs gained*, McKinsey Global Institute, December 2017.

SOURCE: MGI Automation Model, March 2018; McKinsey Global Institute analysis

[153] *Jobs lost, jobs gained: Workforce transitions in a time of automation*, McKinsey Global Institute, December 2017, on McKinsey.com.
[154] MGI Automation Model March 2018.

Digital technologies have opened the door for new business models as well as productivity improvements in established businesses. For example, digitized land records in India make it easier to buy and sell property and to use it as collateral for loans. Internet-based customs forms have radically accelerated port activities in Singapore.

Industry 4.0—a catchall name for disruptive digital technologies that gather and analyze data in real time, autonomously draw conclusions, and then act on the physical world through advanced robotics, 3-D printing, or other machines—is expected to increase productivity at a pace not seen since the introduction of steam power two centuries ago. Digital technologies have also created efficiencies by better matching supply and demand. For example, e-commerce platforms such as Alibaba and Amazon allow businesses to gain broader access to domestic and export markets. The online auction site eBay has found that almost all the small-business sellers that use digital platforms do so to access export markets, while only a small fraction of traditional SMEs does so.[155]

Even as automation and other technologies open new possibilities for business and economies, they will affect work. Our prior research on automation and its impact on employment finds many jobs will be displaced by adoption of the new technologies in the workplace—as many as 400 million globally in the event that the speed of adoption is in the middle of our range of scenarios. However, we also estimate that enough new work will likely be created, especially in emerging economies, to offset those jobs lost, in part as a result of the productivity boost from technology adoption, as has happened in the past. For example, the introduction of computers in the United States enabled net creation of 15.8 million jobs since 1970, with 3.5 million jobs such as typewriter manufacturing and secretarial work destroyed, but at least 19.3 million jobs created in a wide range of occupations and industries.[156]

Nonetheless, the workforce transitions could be considerable and painful on a global basis, with many jobs changing and millions of people potentially needing to switch occupations. The skills needed by the workforce will also shift and educational requirements will rise—posing a significant training and retraining challenge to governments, educational institutions, and companies across the world.[157] China alone may generate as many as 60 million additional net jobs that will require secondary-school diplomas and 33 million additional net jobs that will require undergraduate or advanced university degrees. Meanwhile, India could see greater net demand for workers with a secondary education—as many as 100 million, as increasing prosperity creates a surge of demand for labor.[158]

Some emerging economies are already seeking to address these challenges. For instance, Singapore's SkillsFuture initiative provides all citizens aged 25 and above a credit of $400 to pay for approved courses to improve work skills.[159]

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[155] *Commerce 3.0 for development,* eBay, October 2013; *Towards an inclusive global economy*, eBay, Small Online Business Growth Report, January 2016.

[156] See *Jobs lost, jobs gained: Workforce transitions in a time of automation*, McKinsey Global Institute, December 2017, on McKinsey.com.

[157] *Skill shift: Automation and the future of the workforce*, McKinsey Global Institute, May 2018, on McKinsey.com.

[158] *Jobs lost, jobs gained: Workforce transition in a time of automation*, McKinsey Global Institute, December 2017, on McKinsey.com.

[159] "Steady progress in implementation of SkillsFuture credit," SkillsFuture factsheet, January 8, 2017, skillsfuture.sg.

MANUFACTURING HAS CONTINUED STRONG GROWTH OPPORTUNITIES DESPITE SIGNS OF PREMATURE DEINDUSTRIALIZATION

The manufacturing sector has been a key driver of economic growth for outperformer economies, as they tapped into the demand of high-income countries and captured growth and productivity improvements. Manufacturing also employed a significant share of the population in these economies, providing inclusive income growth that benefited low-skill labor. Higher income and lower unemployment rates contributed to an increase of demand in the form of consumption, ensuring an impact of manufacturing across the pro-growth agenda.

The future may look different, as technological advances such as automation may reduce the ability of some manufacturing industries to generate jobs as they did before. Manufacturing can still present opportunities to increase employment in lower-income emerging economies, but even these countries will have to rely on additional sources of job creation to employ their populations. Nonetheless, we simulate that more than 20 developing economies have the conditions that can enable them to increase manufacturing employment and value even in this new era of automation, at least in terms of labor costs—although they will still need to invest in technology and improve the functioning of labor markets to make this potential a reality. More than half of these countries are in Africa (from Cameroon to Zambia), while others are in South Asia (Bangladesh, Nepal, and Pakistan), Southeast Asia (Indonesia, the Philippines, and Vietnam), and Central America (Guatemala, Honduras, and Nicaragua).

"Premature deindustrialization": manufacturing employment is peaking earlier than in the past

Historically, as countries grew from low-income, agriculture-based economies to higher-income, industrialized economies, manufacturing's relative share of employment and value added increased. Jobs and production moved from primary sectors such as farming into factories and services. However, as economic growth continued, services would generally continue to grow in share while manufacturing would start declining in relative terms. This process, called deindustrialization, usually manifests itself first in employment. As productivity in manufacturing continues to rise, employment in manufacturing starts declining even as share of value added continues to increase. Only later does the share of value added in manufacturing also start declining, as rising incomes support increased domestic demand for services and rising wages lead to production being pushed to lower-cost geographies.

Experience from advanced and emerging economies supports this notion. For example, from 1990 to 2010, arguably two decades of the fastest economic growth in China, its manufacturing sector's share of employment increased from 15 to 19 percent, and its share of GDP rose from 21 to 36 percent. However, as China becomes a middle-income country, it is diversifying away from manufacturing and toward services. Consequently, its share of manufacturing value added in GDP declined to 31 percent by 2014. Likewise, in South Korea, manufacturing's share of total employment rose from 13.6 percent in 1970 to 28.1 percent in 1989, but then began to decline. Manufacturing in South Korea currently employs less than 18 percent of the employed labor force. While its reliance on manufacturing employment has gone down, South Korea has nonetheless established itself as a leader of heavy and high-tech manufactured goods globally. Some advanced economies have similarly seen a peak in the share of value added coming from manufacturing activities. In the United Kingdom, for example, manufacturing has fallen from 25 percent of GDP in 1970 to below 14 percent today. In high-income economies, services represent a large majority of the total value added.[160]

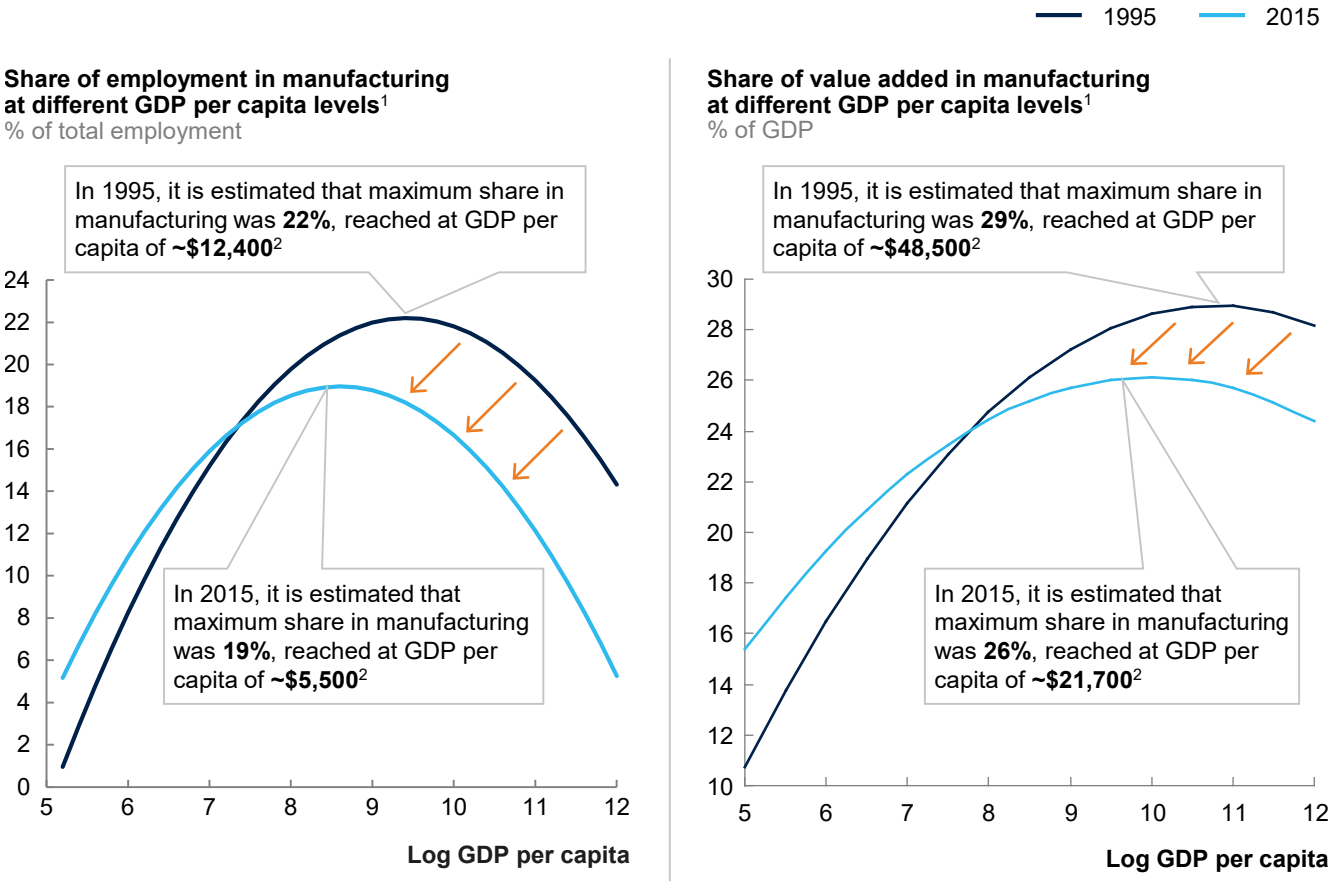
[160] World Input-Output Database Socioeconomic Accounts 2016.

While deindustrialization is generally considered a normal process of economic development, Harvard economist Dani Rodrik and others have observed that it has been happening increasingly quickly and at lower levels of development, a phenomenon dubbed "premature deindustrialization."[161]

Building on Rodrik's analysis, we looked at cross-country growth experiences in the 71 economies starting in 1970. We found that in 1995, manufacturing employment peaked when per capita GDP was $12,400. By 2015, it peaked when per capita GDP was around $5,500. Moreover, we found that the peak of value added from manufacturing came at a per capita GDP of about $48,500 in 1995. By 2015, this had fallen to just below $22,000 (Exhibit 26).[162]

Exhibit 26

There is evidence of premature deindustrialization, in which countries reach peak employment and value added in manufacturing at increasingly earlier stages of development.



1 Regression analysis following specifications from Rodrik (2015), using shares of employment and value added in manufacturing since 1970. Sample includes both developed and emerging economies.
2 Simulated share assuming median population across sample of countries.

SOURCE: Groningen Growth and Development Centre; Dani Rodrik, *Premature deindu*strialization, NBER working paper, 2015; McKinsey Global Institute analysis

[161] Ibid. Dani Rodrik, "*Premature deindustrialization*," *Journal of Economic Growth*, March 2016, Volume 21, Number 1, pp.1–33.

[162] We used data from Groninger Growth and Development Centre (GGDC) and followed the method shown by Dani Rodrik in his premature deindustrialization paper cited above; GGDC sector database: Marcel P. Timmer, Gaaitzen J. de Vries, and Klaas de Vries, "Patterns of structural change in developing countries," in *Routledge handbook of industry and development*, John Weiss and Michael Tribe, eds., Routledge, 2016.

Several factors could contribute to this phenomenon, including technological advances that enhance manufacturing productivity.[163] Automobile and semiconductor manufacturers, for example, have been replacing employees with industrial robots for more than three decades. In South Korea, the total number of employees in the auto industry has grown only 2 percent a year since 2000 at a time when total output has grown by almost 9 percent a year.[164] Meanwhile, robot density in the auto industry—measured as the number of industrial robots per thousand employees—grew by an average of 7 percent annually between 2010 and 2016.[165]

Trade and globalization may also be a factor. As countries open to trade, those without a strong comparative advantage in manufacturing can become net importers of products that were previously produced domestically. China already has established a vast ecosystem of manufacturing clusters and strong positions in export markets which can make it challenging for other emerging economies to compete in the same product categories.[166] In textiles, for example, China accounted for 38 percent of global exports in 2016, up from 13 percent in 1995; it also accounts for as much as 30 percent of global export market share in electronics and more than 20 percent in electrical equipment; nonetheless, as discussed above, there are windows of opportunity in labor-intensive goods.[167]

Opportunities to lift manufacturing productivity vary across subsectors

Despite evidence of premature deindustrialization, we see continuing opportunities for manufacturing. While these opportunities vary by country and by sector, middling and underperformer emerging economies could still increase their manufacturing sector's share of employment by as much as four percentage points and share of GDP by up to three percentage points, according to our estimates, which are based on the relationship between share of employment and value added in manufacturing and GDP per capita (Exhibit 27).[168]

In line with the thesis of premature deindustrialization, we find limited evidence for emerging economies raising the role of manufacturing in both national output and employment in the past decade. China was an obvious exception, raising its share of manufacturing GDP by 7.5 percentage points while simultaneously raising share of manufacturing employment by five percentage points in the decade between 2000 and 2010. But most other countries have not been as successful. Some, like Indonesia, Ghana, and Thailand, raised manufacturing share of employment by one to three percentage points in the last decade, though their manufacturing output grew slower and share of GDP fell marginally over the same period. South Korea, on the other hand, witnessed strong growth in manufacturing share of output by four percentage points in the past decade, even as its share of employment shrank slightly by about one percentage point.

But we also see some examples in recent history which demonstrate that it is possible to generate manufacturing-led growth in employment and output. Bangladesh and Vietnam are notable examples. In the decade between 2006 and 2016, employment and GDP share of manufacturing in Bangladesh increased from 11 percent to 14 percent and 16 percent to 22 percent, respectively. In Vietnam, between 2009 and 2016, the corresponding increases were 14 percent to 17 percent for employment, and 16 percent to 21 percent for GDP share. Poland, with a higher per capita income than Bangladesh or Vietnam, raised its share of

[163] See, for example, Sukti Dasgupta and Ajit Singh, *Manufacturing, services and premature deindustrialization in developing countries: A Kaldorian analysis*, United Nations University Research Paper number 2006/49, 2006.

[164] World Input-Output Database Socioeconomic Accounts 2016.

[165] *World robotics statistics 2017*, International Federation of Robotics, February 7, 2018.

[166] Rhys Jenkins, "Is Chinese competition causing deindustrialization in Brazil?" *Latin American Perspectives*, November 2015, Volume 42, Number 6, pp. 42–63.

[167] UNCTAD.

[168] See technical appendix for details of our modeling. See also Andrew Sheng, "Fixing the roof while the sun is shining," *The Star*, April 14, 2018.

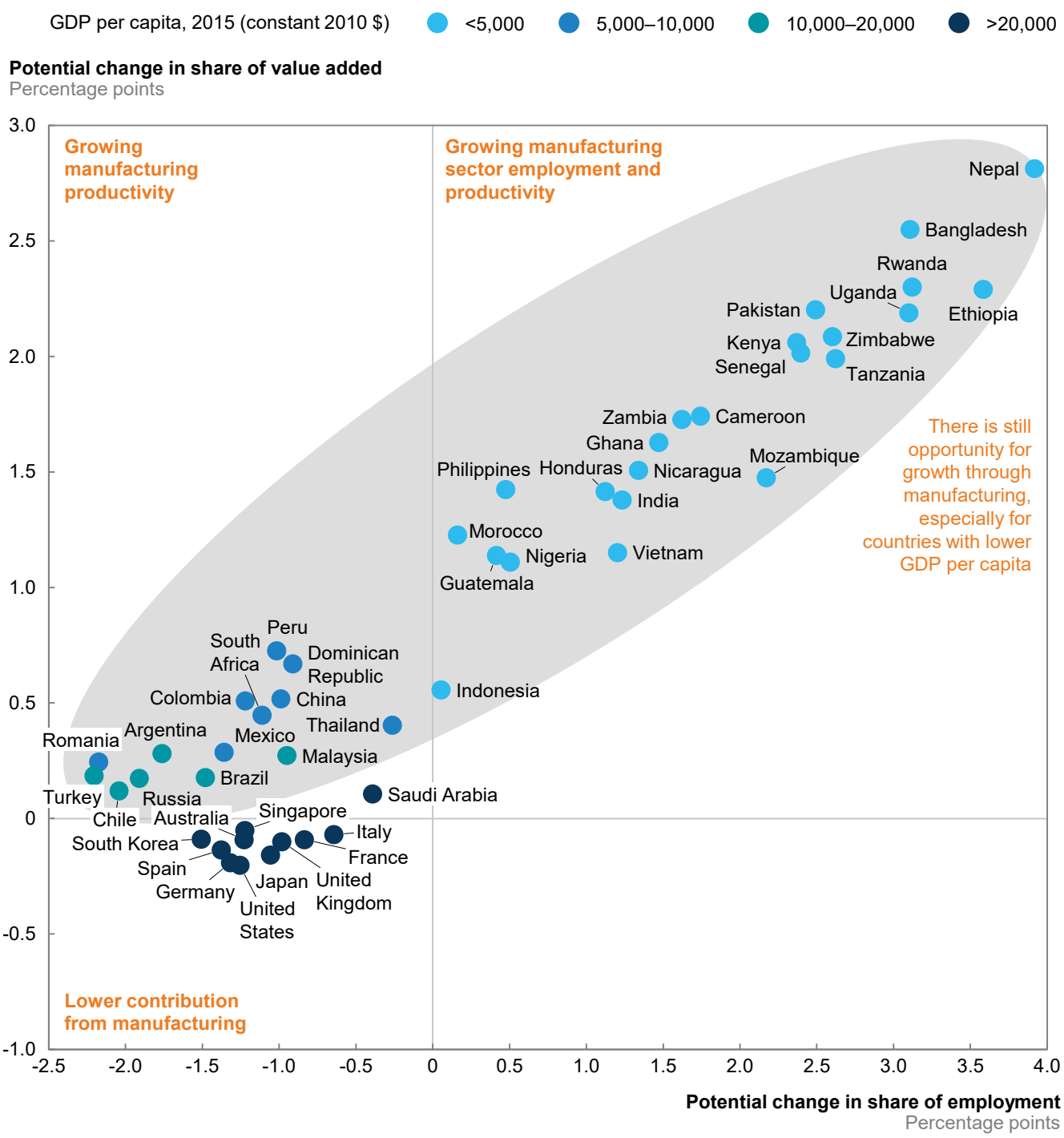
GDP from manufacturing from 14 to 20 percent between 2005 and 2016, while maintaining its share of employment at a constant level.

Exhibit 27

Manufacturing can remain an important source of employment and growth for low-income economies.

SIMULATION

Change in employment and value added in manufacturing in productivity boost scenario, 2015–30



SOURCE: Groningen Growth and Development Centre; McKinsey Global Growth Model; McKinsey Global Institute analysis

Lower-income countries, especially with relatively lower levels of manufacturing share to begin with, can generate manufacturing-led growth, provided they focus on creating the right enabling mechanisms for businesses to become more competitive. One potential advantage for them is China's move away from export of labor-intensive goods. Between 2014 and 2016, China's share of global labor-intensive exports fell from 56 percent to 53 percent, while that share was picked up by Cambodia, India, Indonesia, Myanmar, Thailand, and Vietnam. China's rising labor costs will likely continue to drive its move away from labor-intensive goods, giving other emerging markets room to expand.

Some of these economies are already seeing vibrant manufacturing growth, with specific industries leading the way. Ethiopia, for example, increased manufacturing employment by almost 10 percent and value added by 7 percent a year between 2000 and 2010. India's fastest-growing manufacturing sectors include furniture making, automotive, and pharmaceuticals.[169]

If these countries could achieve higher productivity growth, manufacturing's value added and employment could grow strongly. Ethiopia, for example, has the potential to increase employment in manufacturing by 3.6 percentage points and value added by 2.3 percentage points by 2030, according to our estimates. Other beneficiaries could include Bangladesh, India, Kenya, Mozambique, Nepal, Rwanda, and Vietnam.[170]

Manufacturing does not just create jobs and growth in manufacturing-related sectors, but has a broader impact on productivity and employment in the economy. An illustrative analysis of manufacturing and services in five emerging economies—Bangladesh, Ethiopia, India, Mexico, and Vietnam—suggests that, including these induced effects, manufacturing has a significant multiplier effect of more than five times, compared with three times for services. The multiplier effect for output is about 2.3 times, compared with 1.9 times for services. As manufacturing jobs have higher wages, the multiplier impact on output will also be higher than for services.

Manufacturing output could also grow faster in a second group of non-outperforming countries, even as its share of employment will likely decline. This group includes Russia, South Africa, Turkey, and most Latin American countries, including Brazil, Chile, Mexico, and Peru. Investments in the manufacturing industries of these countries would probably not increase the share of the population employed in manufacturing, but could contribute to overall productivity growth.

The share of employment in manufacturing is already declining in some of these countries, including Chile (declining since 1974), Peru (1975), Brazil (1986), and Mexico (1990). However, manufacturing output is still growing slightly faster than the rest of the economy in all those countries. In Brazil, for example, the food and beverage industry is one of the fastest-growing manufacturing sectors, having expanded output by more than 9 percent annually from 2000 to 2014, while the total number of employees grew by only 2 percent per year in that period. A similar trend—higher productivity and lower employment—is seen across multiple industries in this group of middle-income countries.

[169] World Input-Output Database Socioeconomic Accounts 2016.

[170] For comparison, China's value added in manufacturing increased by 3.9 percentage points between 1995 and 2010.

Even if its contribution to employment declines, the overall boost to productivity from manufacturing can benefit the entire economy through the pro-growth agenda. Rising productivity translates into more corporate income for enterprises, which they can reinvest in other productive activities. Rising productivity is also usually correlated with an increase in wages, which can drive consumption of goods and services from all sectors. For example, the textile and apparel industry in India has increased productivity by almost 3 percent a year since 2000, while raising wages by nearly 4 percent annually.

Opportunities to increase productivity in manufacturing: a closer sectoral look at textiles, electronics, and automotive

We analyzed productivity levels, measured as value added per employee, across selected manufacturing sectors for a range of countries (Exhibit 28).[171] Productivity in most emerging economies lags behind that of advanced economies, such as Germany, Japan, and the United States. But there is wide variability in all industries even among emerging economies, showing the importance of deliberate action to enhance productivity. For example, the value added per employee in Mexico is three to nine times greater than in India across all manufacturing sectors. Such differences are an indication of the opportunities for many emerging economies to increase productivity.

Some cases stand out. South Korea is the only country on the list with high levels of productivity across all manufacturing sectors. Its levels exceed even developed economies in sectors such as the manufacture of chemicals, electrical equipment and electronics, metals, and minerals. India, on the opposite end of the spectrum, often lags behind other emerging economies in most sectors.

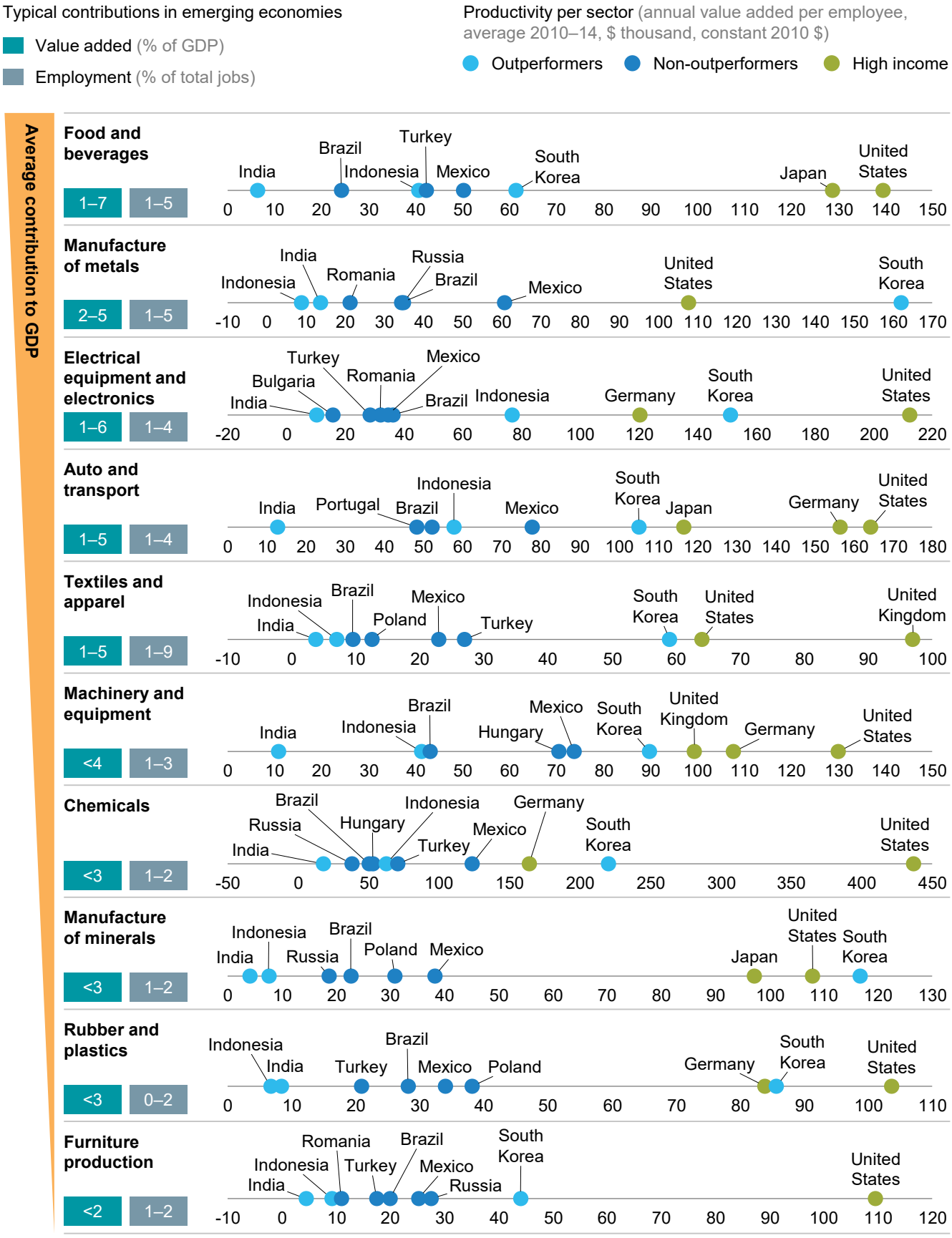
Differences in productivity can partially be explained by the value chain process or processes in which a country specializes. In Mexico, for example, each auto industry worker produces a total value added of almost $80,000 a year, which is below the productivity levels of workers in the same industry in Germany, Japan, or South Korea. This can largely be explained by Mexico's focus on parts production and assembly, whereas Germany and South Korea also engage in higher value-added activities such as design, engineering, and distribution. Other factors, such as industry structure, use of technology, management practices, and capacity utilization, also influence productivity per worker.

We look in depth at three industries that present opportunities to aspiring developing economies: textiles, electronics, and automotive.

[171] World Input-Output Database Socioeconomic Accounts 2016.

Exhibit 28

There is opportunity for firms in emerging economies to increase productivity in manufacturing sectors.



NOTE: Not to scale.

SOURCE: World Input Output Database, 2016; McKinsey Global Institute analysis

In textiles, Bangladesh, Indonesia, Turkey, and Vietnam may join China as the main exporters, meeting global demand growth

Global demand for textiles and apparel has grown at 2 percent annually since 1995, led by consumption in developed economies. Analysts expect consumption to grow at 4 percent annually until 2030, driven mainly by the growing middle class in Asia and elsewhere.[172]

Most of the global demand for textiles will be met by manufacturers in emerging economies. Five countries—Bangladesh, China, Indonesia, Turkey, and Vietnam—account for 51 percent of global growth in exports of textiles and apparel in the past five years. While China is the largest exporter of textiles and apparel, with 38 percent of global exports, its share is declining. Ethiopia, Rwanda, and Vietnam are among the fastest-growing countries in exports in the category with more than 15 percent annual growth in the past five years. Bangladesh, a major textile exporter, has grown exports by 7 percent annually in the same period. A 2015 McKinsey survey of chief purchasing officers from garment majors in Europe found that Bangladesh was at the top of the list of future top sourcing destinations, while India, Myanmar, Turkey, and Vietnam were close followers, and Ethiopia was attracting growing interest.[173]

Tapping into global demand for clothing has translated into a positive impact on employment and incomes. Bangladesh has around 5,000 garment factories employing approximately 4 million people—about 5 percent of the country's labor force.[174] Workers in the ready-made garment industry have benefited from robust wage growth, but there is still room to improve workplace safety, working conditions, and environmental compliance.

Multiple trends in the sector are shaping what it will take for emerging-economy firms to succeed. Evolving customer behavior and the impact of e-commerce mean that turnaround time for apparel manufacturers is shrinking as retailers demand shorter order cycles. The trend toward quick-response orders implies the need for manufacturers to be more agile in supply-chain management and to grow comfortable with flexibility, small batch sizes, and fast replenishment. Investments in technology will become imperative as garment manufacturers become more integrated into supply-chain systems of large retailers. For now, robots have had relatively little impact on the industry, as the cost-benefit equation still overwhelmingly favors low-wage labor over automation in this sector.

The electronics sector can boost technology adoption and productivity growth

Global demand for electronics and electrical equipment has grown at 5 percent per year since 1995, making the industry the fastest-growing manufacturing subsector globally, followed by pharmaceuticals, automotive, and chemicals. Electronics could maintain its fast growth in global demand until 2030, according to industry estimates.[175] At the same time, the role of emerging economies is likely to increase. While 52 percent of total value added globally came from emerging economies in 2016, that share is expected to grow to around 65 percent by 2030.[176]

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172 Estimates of consumption by IHS Markit. Consumption measured in total merchandise value.

173 Achim Berg, Saskia Hedrich, and Bill Russo, "East Africa: The next hub for apparel sourcing?" McKinsey & Company, August 2015, McKinsey.com.

174 Ibid.; "Bangladesh: The next hot spot in apparel sourcing," *McKinsey Quarterly*, March 2012.

175 Estimates of consumption by IHS Markit. Consumption measured in total merchandise value.

176 Estimates of value added by IHS Markit.

Emerging economies that in the past could successfully tap the value-added growth opportunity have experienced expanded employment and higher wages. For example, in China, which is at the forefront of upgrading technology in the sector, factories in the communication, information and communication technologies, and electronics industries employed more than 9 million workers in 2014, up from 6.6 million in 2009, implying 6.4 percent growth per year.[177]

At the firm level, local electronics assemblers have relied on four drivers of productivity: achieving production scale to support high value-added product lines, adopting automation technologies, implementing best practices in manufacturing processes, and interacting closely with global players.

Higher value-added products in electronics require plants that are very large, automated, and able to benefit from economies of scale. A modern semiconductor factory requires an initial investment of approximately $3 billion, which is about three times the cost of an assembly factory.[178] China and South Korea are doubling down on their investment in the sector by installing more robots. Our experience working with manufacturers in Southeast Asia has shown that implementing lean manufacturing and optimizing layout, processes, information flow, and material flow can reduce labor costs up to 20 percent and expand production capabilities by more than 10 percent in less than 18 months.

Interaction with global players is another driver of productivity. Larger players usually provide access to global value chains and demand more strict quality specifications. In Vietnam, for example, the most productive electronics companies are subsidiaries or joint ventures of global players such as Foxconn, Intel, Samsung, and Wintek. These companies have invested significantly since 2010 to set up local production facilities and build partnerships with local part manufacturers.[179]

Indeed, Vietnam is an example of a country that has implemented reforms to boost production and value added in electronics manufacturing. The country set up three industrial clusters (south, central, and north) with special conditions for investment, such as tax exemptions, subsidies, and better infrastructure. It offered loans with a rate cap for high-tech companies and capital spending subsidies of as much as 50 percent on infrastructure development. It also leveraged free trade agreements with the ten members of the Association of Southeast Asian Nations as well as with China, Japan, and South Korea to facilitate integration with the value chains of electronics firms in the region.[180] These policies, coupled with low labor costs, have made Vietnam the fastest-growing exporter of electronics—export revenues have grown more than 50 percent annually since 2009.

[177] Jun Hou, Stephen Gelb, and Linda Calabrese, *The shift in manufacturing employment in China*, Overseas Development Institute background paper, August 2017.

[178] *How to compete and grow: A sector guide to policy,* McKinsey Global Institute, March 2010, on McKinsey.com.

[179] Hong Anh, "Localisation: game-changer for Vietnamese manufacturing industry," *Vietnam Investment Review*, June 30, 2017.

[180] Ibid.

In automotive, the locus of production has been moving to emerging economies including Mexico and Eastern Europe

Worldwide automotive industry revenue has grown at a robust 4 percent annually since 1995, and the locus of production has moved to emerging economies, which typically produce auto parts and host assembly plants.[181] About 46 percent of all global growth in exports since 2011 came from five emerging economies (China, the Czech Republic, Hungary, Mexico, and the Slovak Republic).

We expect demand will continue to grow, but changing consumer preferences and the rise of ride-hailing apps are likely to slow the pace to around 2 to 3 percent per year until 2030.[182]

The industry has improved productivity with strategies at a macro level as well as the firm level, where three factors have driven productivity: adequate scale to support investment and product development; automation adoption; and strong interaction with global players. Maruti Suzuki provides one example of these factors at work. The Indian company, founded in 1981, has a 54 percent share of the domestic passenger car market.[183] Since 2010, it has tapped into international markets to increase utilization of its three plants while heavily investing in automating those facilities. It also has integrated processes with its majority owner, Suzuki Motor of Japan. Maruti Suzuki is now one of India's most profitable car manufacturers, with a 9 percent profit margin on revenue of nearly $12 billion in 2016.

At a macro level, automotive manufacturing requires the creation of ecosystems where suppliers collaborate closely with automobile manufacturers to meet original-equipment manufacturers' and regulatory specifications. Low transportation costs are also critical to connect manufacturers with global markets and give them access to cheap inputs such as steel and aluminum. Finally, access to affordable capital for the significant initial investment is required, especially for local auto-part manufacturers which are usually capital-constrained.

Some countries have worked specifically on macro-enablers. Infrastructure investments and free trade agreements benefited the automobile industry in Eastern Europe, Malaysia, and Mexico. Morocco used tax incentives to encourage cluster development, while Brazil promoted clusters by investing in tailored educational programs with local universities. Government guarantees and direct loans have been effective to offset high real interest rates in Mexico and Brazil. However, in some countries, state support for local car production, including trade barriers and investment incentives, has led to overinvestment and persistent overcapacity. The McKinsey Automotive & Assembly Practice estimates that carmakers worldwide can produce 20 percent more cars than they can sell; in Brazil, capacity utilization reached a historical low of 52 percent in 2016.[184] In China, local original-equipment manufacturers operate often subscale plants with low utilization, while in Mexico, 80 percent of auto-part manufacturers have fewer than ten employees.[185]

[181] Assembly factories are typically owned by original equipment manufacturers that own the automobile brands marketed internationally.

[182] Estimates of consumption by IHS Markit. Consumption measured in total merchandise value.

[183] "Maruti gains market share to 53.54% in Q1; Tata Motors pips Honda Cars," *Business Standard*, July 10, 2018.

[184] Data from the Brazilian National Association of Automotive Vehicle Manufacturers.

[185] *A tale of two Mexicos: Growth and prosperity in a two-speed economy*, McKinsey Global Institute, March 2014, on McKinsey.com.

SERVICES CAN CREATE JOB AND PRODUCTIVITY-GROWTH OPPORTUNITIES AS MANUFACTURING'S CONTRIBUTION DECREASES

Service sectors account for more than 60 percent of GDP and more than half of total employment in the middling and underperforming emerging economies we analyzed.[186] Moreover, their relative importance has been increasing, and earlier in countries' development cycles compared with early industrializers (Exhibit 29).

Despite their large role in the economy, services have not been a substantial driver of productivity or economic growth, especially in early development stages. Unlike tradable manufacturing sectors, which could access global markets and technology, retail, construction, and other services are generally localized and constrained by income levels in the domestic market. Services are more labor-intensive than manufacturing, often relying on individual interactions that are less scalable. Services processes—whether ringing up a sale in a store, making a diagnosis in a clinic, or fielding a customer's complaint in a call center—also tend to be less standardized, limiting opportunities to improve productivity or automate processes.

It is particularly important for emerging economies to simultaneously increase employment and productivity in service sectors such as construction and trade because those sectors typically absorb the greatest numbers of workers moving out of agriculture. In studying 19 emerging economies over the past decade, we found most countries could lift productivity and employment in those sectors—though the growth was not always even or automatic. Hong Kong, Malaysia, Singapore, and Sri Lanka, for example, grew construction sector employment at 3 to 5 percent per year in the past decade, while achieving more than 5 percent annual growth in construction sector productivity. South Africa and Vietnam achieved similar levels of employment growth, but productivity growth of less than 1 percent per year in construction. We found similar trends in wholesale and retail trade: Indonesia, Singapore, Sri Lanka, and Vietnam grew employment by 1 to 3 percent per year, while improving trade sector productivity by 3 to 4 percent per year. Poland, Thailand and Pakistan had 1 to 3 percent annual growth in employment, while productivity grew 1 to 2 percent per year.

Several trends are breaking through such limitations and increasing the viability of services as a driver of productivity. Technology—particularly digital technology and automation—has created new opportunities for productivity growth. In the retail sector, technology has allowed the proliferation of e-commerce players with operating models that redesign how the industry organizes along the value chain. Previous MGI research estimates that online retailers are 80 percent more productive than modern retailers such as supermarkets and hypermarkets.[187] In countries with substantial e-commerce penetration, such as Brazil, India, and Indonesia, productivity in the retail sector has grown by more than 5 percent per year since 2000.[188]

Increasing connectivity of global businesses has made services increasingly tradable. The emerging economies we analyzed exported almost 40 percent of their total output in business services and ICT in 2016. The most outstanding case is India, which exported more than 95 percent of the industry's output; two other leading countries in the field, South Korea and Poland, exported 61 and 53 percent, respectively. Globally, business services

[186] The service sector includes activities such as construction, retail, accommodation, transportation and logistics, financial services, real estate, public administration and public services, telecommunications, and several business services. It doesn't include mining, extraction of natural resources, agriculture or manufacturing.

[187] *Global growth: Can productivity save the day in an aging world?* McKinsey Global Institute, January 2015, on McKinsey.com.

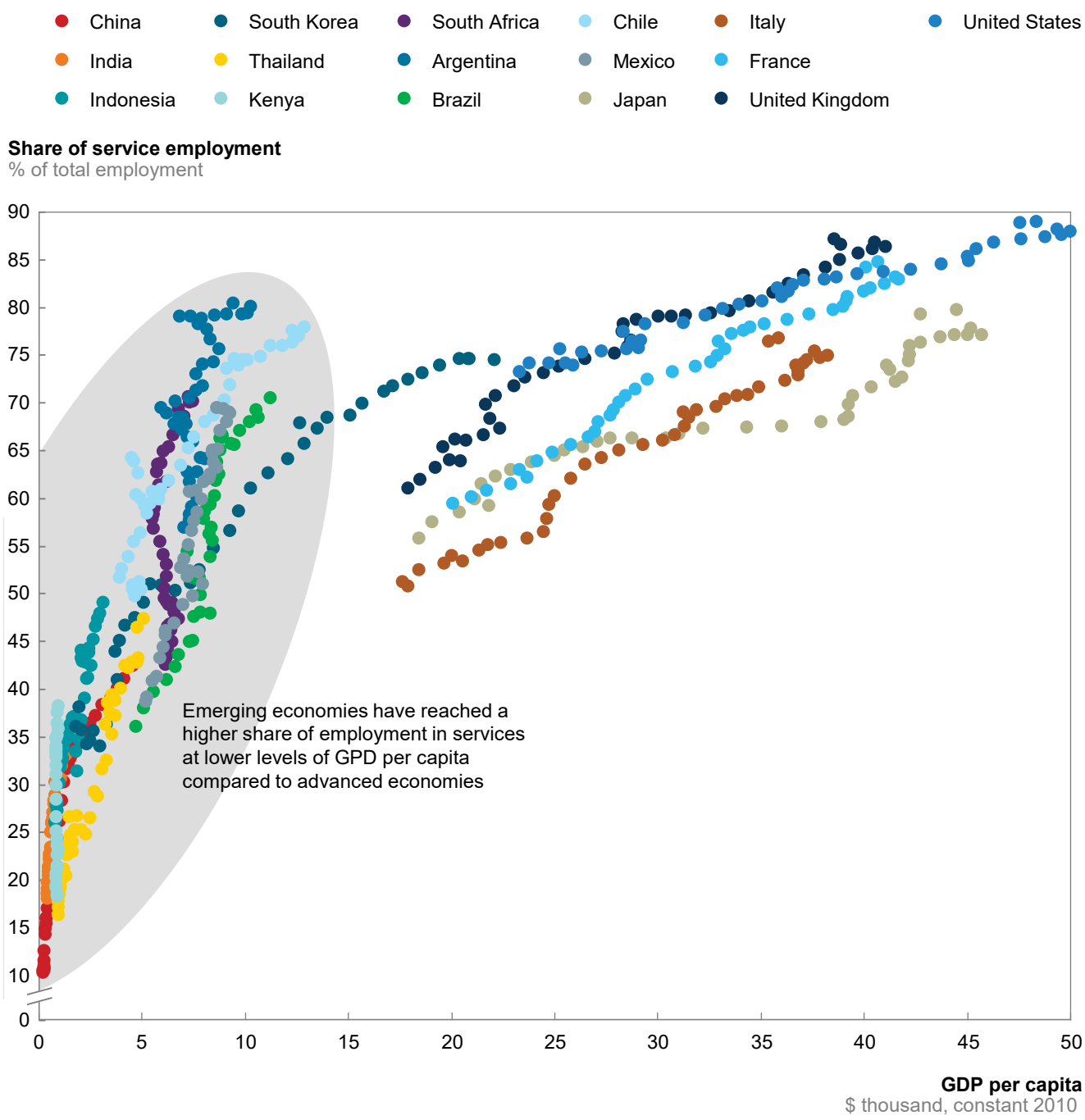
[188] World Input-Output Database Socioeconomic Accounts 2016.

and ICT represent 40 percent of total services exports; travel and logistics services another 40 percent; and financial services 10 percent.[189]

Exhibit 29

The share of employment in services is becoming more relevant at earlier stages of development.

Share of employment in services by country over time, 1970–2016



SOURCE: Groningen Growth and Development Center (GGDC Database); McKinsey Global Institute analysis

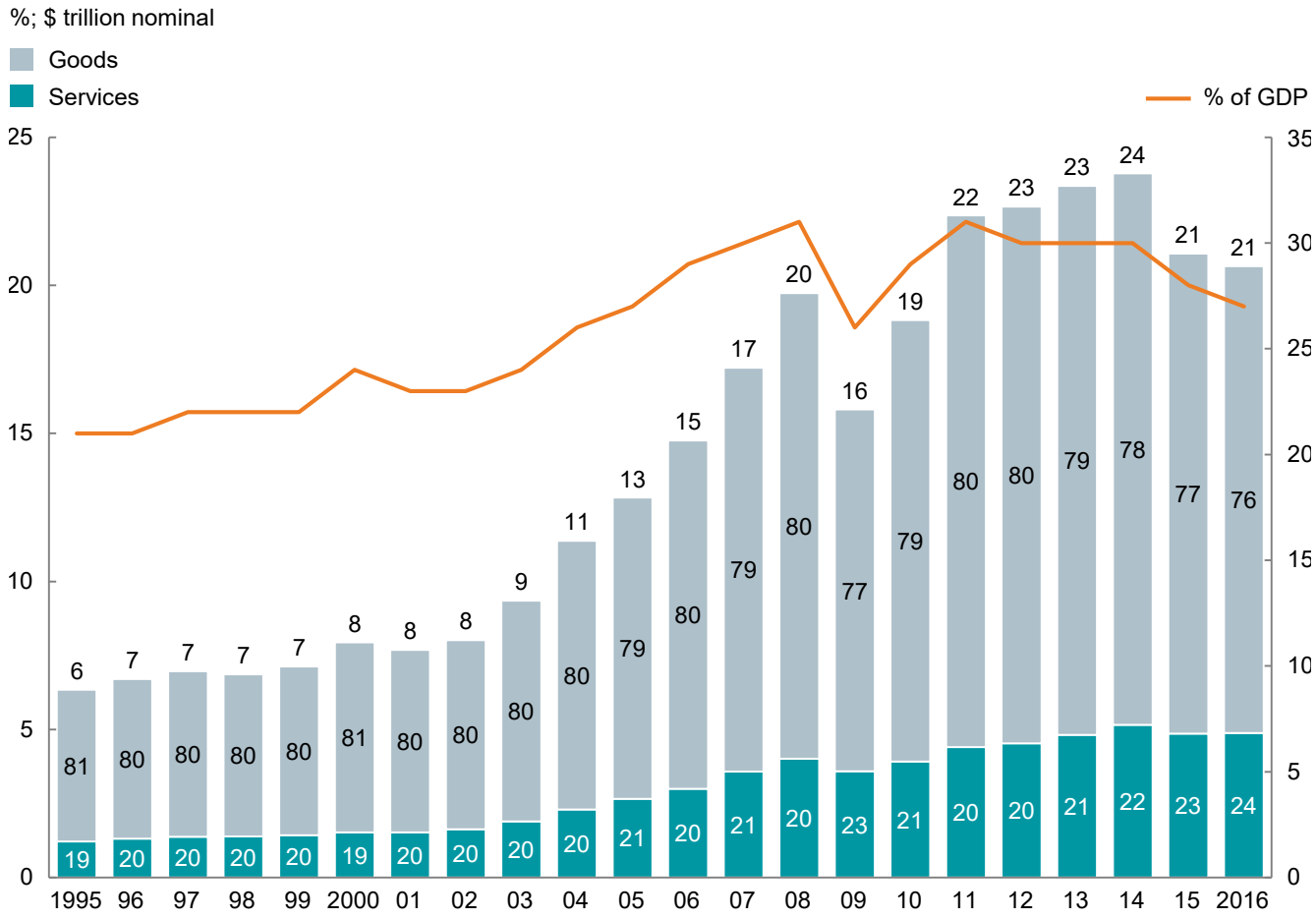
[189] McKinsey Global Institute analysis using data from UNCTAD and IHS Markit.

As countries have taken advantage of opportunities in this field over the previous five years, the service sector's share of total global exports has grown from 20 to 24 percent, while exports of goods decreased as a percentage of both total exports and global GDP (Exhibit 30).[190]

Exhibit 30

While exports of goods are declining, exports of services show positive growth and a higher share in global trade.

Global exports in services and goods, 1995–2016



1 Includes all outperformers, non-outperformer emerging economies, high-income, and excluded economies.

SOURCE: UNCTAD; World Bank World Development Indicators; McKinsey Global Institute analysis

Taken together, these trends illustrate how the service sector can play a more active role in starting and maintaining the pro-growth agenda in emerging economies in coming years, providing not only jobs but productivity growth as well. Additionally, productivity growth in service sectors can lift productivity in manufacturing, as firms in this sector rely on services such as logistics, banking, and IT. In advanced economies, manufacturers spend 20 to 25 cents on services inputs for every dollar of output.[191]

[190] UNCTAD.

[191] *Manufacturing the future: The next era of global growth and innovation*, McKinsey Global Institute, November 2012, on McKinsey.com.

A closer look at three service sectors shows the productivity potential: business process and IT, retail, and construction

Opportunities to boost productivity abound in the service sector. Exhibit 31 shows productivity levels, measured as value added per employee, across service sectors in many countries. National variation in productivity among service industries is much greater than the variability among manufacturers. For example, South Korean construction workers are 17 times as productive as Indian construction workers, while a worker in the financial sector in Brazil is more than five times as productive as a worker in the same industry in Indonesia.[192] We look at three sectors by way of example for potential productivity improvements.

IT and business services illustrate the tradability and productivity potential

Global trade in business and IT services doubled to more than $2 trillion between 2005 and 2016. IT services accounted for $900 billion of that, including cloud services, data center services, software implementation and support, and business-process outsourcing. Looking ahead, global demand for IT and BPO is forecast to grow 3 percent annually until 2025, with digital spending becoming the main driver of growth.[193]

About 75 percent of global demand comes from North America and Western Europe. The IT/BPO industry represented 43 percent of total trade of services in 2016, or 10 percent of total trade of goods and services, an increase from 7 percent in 2005. Although the sector employs a small share of the population, it has shown robust growth. In India, for example, IT/BPO revenue has expanded at 9 percent annually since 2012, while employment has grown by 6.0 to 6.5 percent.[194] Productivity has risen 4 percent annually since 2000.[195]

At a firm level, productivity strategies have focused on improving the talent pipeline, professionalizing and organizing the workforce within IT/BPO companies—and boosting supply of new digital skills such as AI, machine learning, and advanced analytics—through acquisitions and partnerships. At a macro level, rising broadband connectivity and a large, educated workforce have been growth drivers. India is the second-largest English-speaking hub of scientific professionals: it has more than 4 million technical workers and is adding 75,000 software professionals every year. Indian software professionals have much lower salaries than their Western counterparts (about one-tenth what they could earn in the United States). Similarly, countries such as Costa Rica and some Eastern European nations have invested in education to foster the development of digitally savvy, English-speaking workforces to enable their companies to compete in international markets.

[192] World Input-Output Database Socioeconomic Accounts 2016.

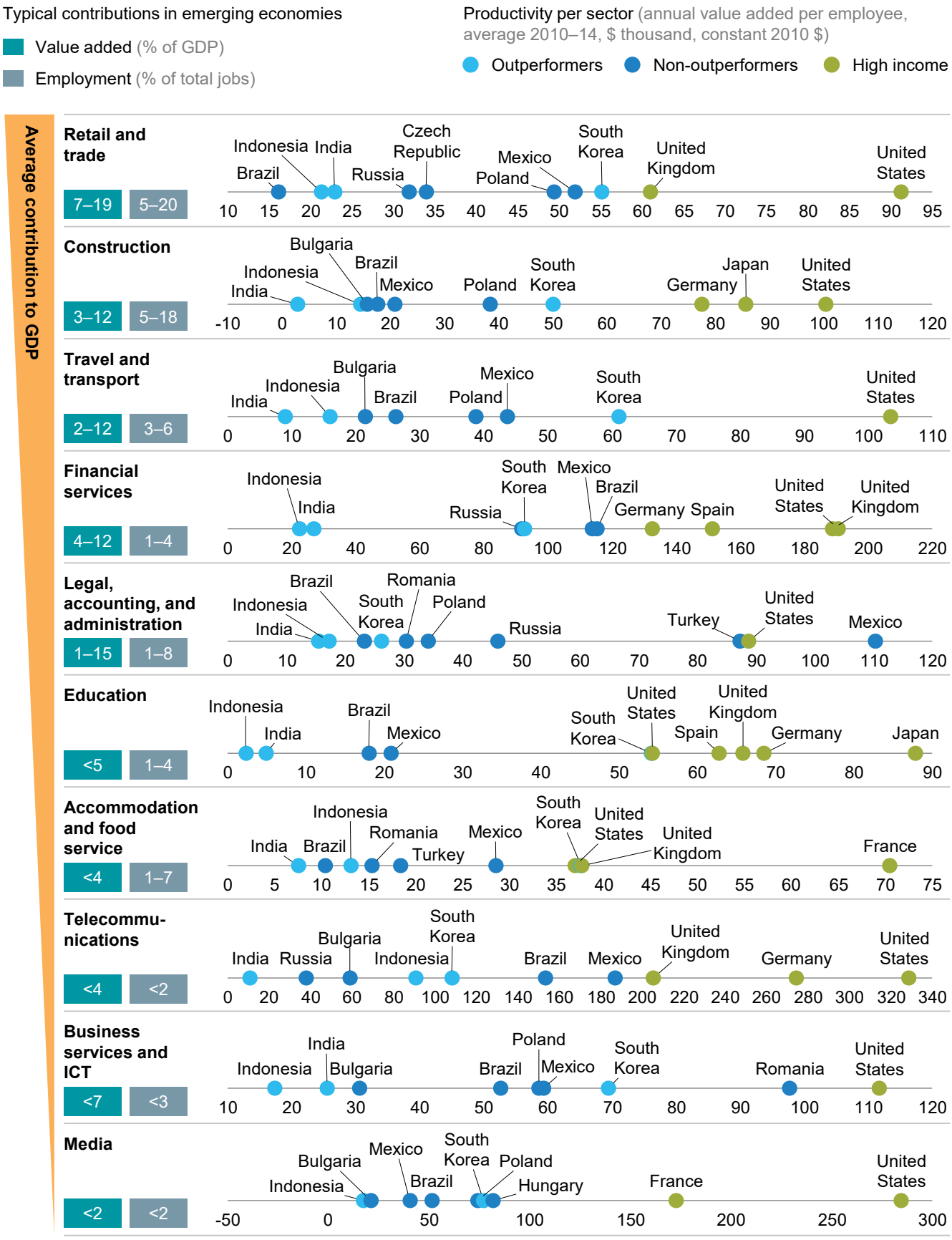
[193] *Perspective 2025: Shaping the digital revolution*, NASSCOM, 2016, nasscom.in.

[194] *Jobs and skills: The imperative to reinvent and disrupt*, NASSCOM, May 2017; *Indian IT-BPM industry—FY2013 performance review, FY2014 outlook*, NASSCOM, February 2013.

[195] World Input-Output Database Socioeconomic Accounts 2016.

Exhibit 31

Emerging economy firms have opportunities to increase productivity in service sectors.



NOTE: Not to scale.

SOURCE: World Input Output Database, 2016; McKinsey Global Institute analysis

In retailing, modern channels, practices, and technology boost productivity, but many countries still shield small stores

With the rise in consumer spending and the emergence of a more affluent, urban population, retailers in emerging economies have had strong growth. Revenue at retail and trade firms in the outperformer group grew 14 percent each year since 2005 (versus 9 percent in other emerging economies). Part of that went toward real wage growth, which from 2010 to 2014 ranged from 2 percent annually in Korea to 7 percent in Brazil.[196] Retail is also a significant job generator, accounting for about 14 percent of all employment in the emerging economies we analyzed. There is variability across countries: retail accounted for 19 percent of employment in Brazil but only 5 percent in India in 2014.

However, many emerging economies protect small-scale stores through barriers to foreign direct investment, zoning laws, or restrictions on the size of stores. As a result, India, Indonesia, and Vietnam have few modern-format grocery stores.[197] More modern channels, practices, and technology are the key to productivity growth in the retail sector, which means that many countries may need to reconfigure their retail landscape.

A recent MGI study estimated that retailers in emerging economies could double productivity per employee in 13 years, implying annual productivity growth of 5.3 percent.[198] A huge potential could be achieved shifting more sales to hyperstores, supermarkets, big-box stores, and other modern retail formats, which are typically at least three times as productive as small-scale, traditional stores, in part because they employ fewer workers relative to revenue.[199] They also achieve scale benefits in purchasing, merchandising, and pricing.

Other opportunities to surf the next wave of productivity in retailing include adopting operational best practices, such as better merchandising, supply-chain efficiencies, and lean store operations. These can realize around 20 percent of the productivity growth potential, while integrating digital technologies can capture another 20 percent.[200]

Indeed, technology disruptions present powerful opportunities for retailers to create or integrate with new online platforms that connect with consumers directly. China, with 730 million internet users, is a global e-tailing leader, possessing 40 percent of global retail e-commerce and a mobile payment market that is 11 times the size of the US market.[201] Despite the size, there are opportunities for productivity growth; previous MGI research estimated that if China's e-tailers were to catch up in productivity with their counterparts in other markets, retail sector productivity could rise 14 percent.[202]

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196 Real wage growth in the industry has been steady and ranged from 2 percent annually in Korea to 7 percent in Brazil from 2010 to 2014.

197 Peter Child, Thomas Kilroy, and James Naylor, "Modern grocery and the emerging-market consumer: A complicated courtship," *Perspectives on Retail and Consumer Goods*, Autumn 2015, Number 4.

198 *Global growth: Can productivity save the day in an aging world?* McKinsey Global Institute, January 2015, on McKinsey.com.

199 Ibid.

200 Ibid.

201 *Digital China: Powering the economy to global competitiveness*, McKinsey Global Institute, December 2017, on McKinsey.com.

202 *China's e-tail revolution: Online shopping as a catalyst for growth*, McKinsey Global Institute, March 2013, on McKinsey.com.

Construction has underperformed, but has potential

The world spends $10 trillion a year—13 percent of global GDP—on the buildings, infrastructure, and industrial installations that are the backbone of the global economy.[203] Looking at the future, construction-related spending is expected to increase 3.6 percent a year to 2025. Growth will be higher in emerging economies, fueled by rising incomes that are vaulting millions more into the middle class as well as by continuing rapid urbanization that is creating demand for new housing. For example, demand for real estate and utilities is set to grow at 5 to 10 percent a year in China, India, and the Middle East.<?>

The building industry is a jobs engine, employing 7 percent of the global working-age population. Most of those jobs, however, are low-skill positions, so productivity growth in construction has trailed other sectors in the economy. Globally, labor productivity growth in the construction sector averaged 1 percent from 1995 to 2015, compared with 2.8 percent for the overall global economy and 3.6 percent in manufacturing. If construction productivity growth were to catch up with that of the overall economy, the industry's value added could rise by $1.6 trillion a year globally, including $410 billion in emerging economies. That would be enough to meet about half of the world's annual infrastructure needs or boost global GDP by 2 percent a year.[204]

There are examples of ways to boost productivity in construction. At a firm level, one idea is to employ repeatable design elements that do not require bespoke solutions. Procurement and supply-chain management can be significantly improved through better planning, use of technology, and increased transparency among contractors and suppliers. Similarly, on-site execution could be enhanced by introducing more rigorous planning processes.

Chinese firms have applied many such techniques. China State Construction Engineering, the largest construction company in the world, uses a manufacturing-style production system to leverage scale across multiple projects in Asia and Africa. This approach incorporates centralized planning, standardized designs, and prefabricated materials. China is the country with the fastest productivity growth in construction in the past 20 years, thanks in part to the adoption of these productivity levers, as well as improvements in regulation and processes.[205]

Other tools can boost productivity in government-related construction projects. Streamlining approval processes and setting up one-stop government offices encourage transparency on publicly funded developments while also reducing corruption. Second, the use of best value and past performance for tendering processes can increase the government's probability of choosing the most competitive bidders. The availability of government loans or guarantees can provide access to financial resources for small, capital-constrained firms, which is critical in an industry with long-term investment horizons and high initial capital investments. Finally, government can require separate construction companies to jointly acquire steel, concrete, and other raw materials; with greater purchasing power, they can negotiate lower prices.

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[203] *Reinventing construction: A route to higher productivity*, McKinsey Global Institute and McKinsey's Capital Projects and Infrastructure Practice, February 2017.

[204] Ibid.

[205] Ibid.

As in other service subsectors, technology can have a significant impact on productivity in construction. Cloud-based control and collaboration platforms and predictive analytics tools, for example, have demonstrated the potential to increase productivity on construction sites by up to 50 percent.[206] Additionally, governments can cut infrastructure costs and improve transparency through the use of electronic procurement platforms. For example, an electronic procurement pilot made by the government of India lowered the costs of managing and reviewing tenders, increased the number of bidders, improved decision making, and increased transparency.[207]

AN $11 TRILLION PRIZE FOR THE GLOBAL ECONOMY IF ALL DEVELOPING ECONOMIES COULD MATCH THE OUTPERFORMERS' PRODUCTIVITY GROWTH

What would be the impact on the global economy if all emerging economies could match the productivity growth record of the 18 outperformers? As a thought exercise, we conducted a simulation using our universe of 71 countries.

Certainly, the difference in productivity growth between outperformers and their peers is sizable. Long-term outperformers' productivity increased by 4.2 percent annually from 1980 to 2015—the earliest period for which we have data—while recent outperformers' productivity grew 5.5 percent a year from 1995 to 2015.[208] In contrast, more than two-thirds of the economic growth in middling and underperformer emerging economies from 1985 to 2015 was attributable to a growing labor force rather than increased productivity.[209] Productivity in these countries grew just 0.2 percent a year between 1985 and 2000 and 1.4 percent a year between 2000 and 2015, on average.

If middling and underperforming economies could match the historical 4.2 percent annual productivity growth rate of the 18 outperformers, this would increase their per capita GDP growth rates to 4.6 percent and nominal GDP growth to 5.8 percent annually (Exhibit 32).

Tripling productivity growth rates is an ambitious goal, but the precedent has already been set: this is what the 11 recent outperformers achieved between 1995 and 2015 compared with the baseline period of 1980 to 1995. Moreover, some of the economies that are close to breaking through to outperformer status have likewise shown that productivity leaps are possible. As a cohort, these very recent accelerators raised their average rate of productivity growth to 3.1 percent a year between 2005 and 2015 from 1.2 percent annually from 1995 to 2005. For investment rates, too, the precedents set by the outperformers are not impossibly far off for those economies that are currently middling or underperforming. It is important to note that our simulation is not a prediction, but rather an outline of the possibilities. Our research has shown that a pro-growth agenda, rather than starting conditions, geographic location, or resource endowments, is the essential element required for sustained growth—and every country can implement that.

[206] Ibid.

[207] Sanjay Aggarwal and V. K. Srivastava, *e-Procurement in Indian Railways,* National Institute for Smart Government, October 2014.

[208] Productivity figures for long-term outperformers are available since 1980.

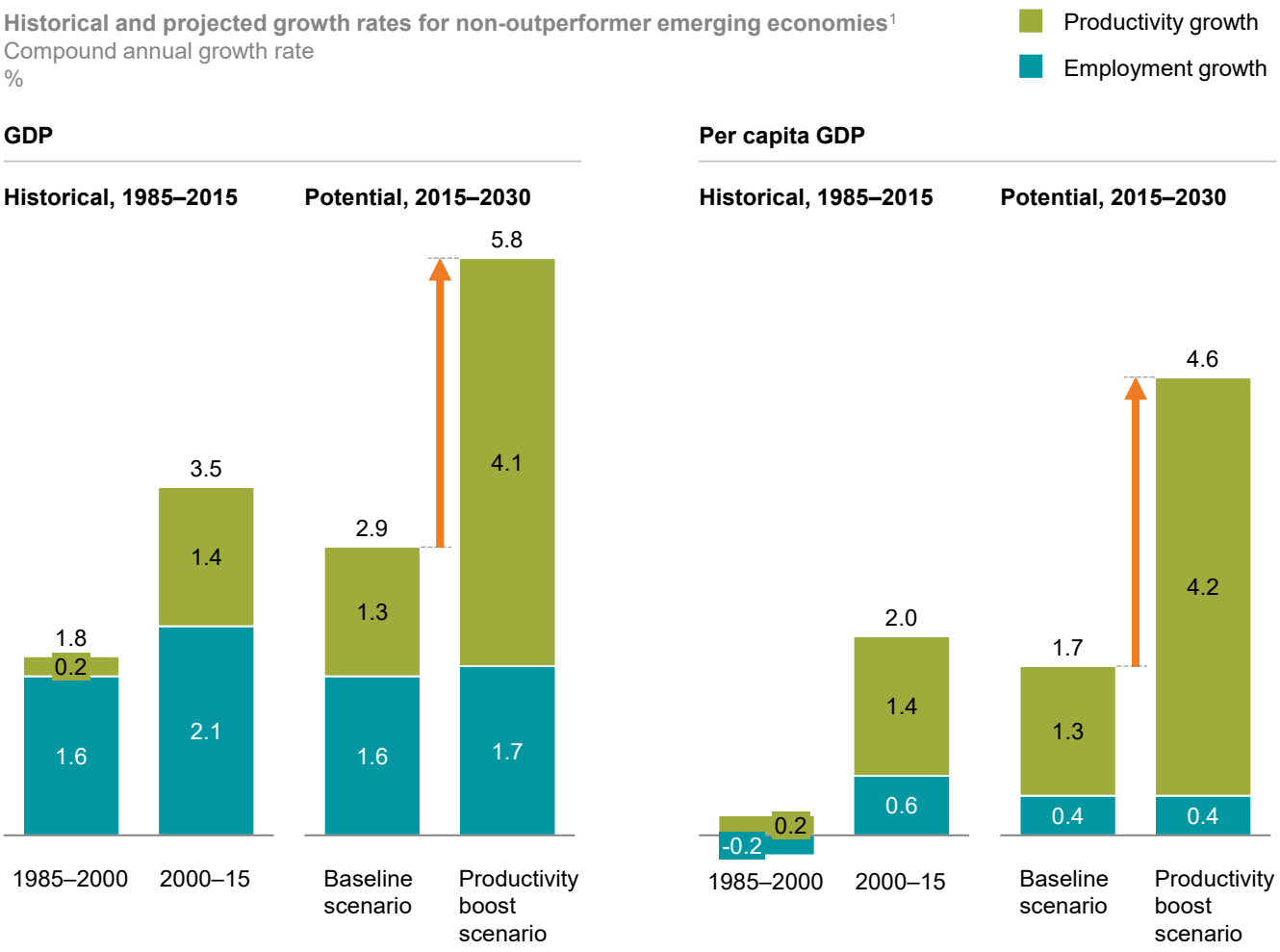
[209] World Bank World Development Indicators and McKinsey Global Growth Model.

Prior MGI research has shown that emerging economies may have an annual productivity growth potential of up to 6 percent between 2015 and 2025. Four-fifths of this potential improvement, or 4.8 percent growth annually, could come from "catch up" productivity improvements.

Exhibit 32

By matching the productivity growth of outperformers, emerging economies could raise annual GDP per capita growth rates to almost 5 percent.

Historical and projected growth rates for non-outperformer emerging economies[1]
Compound annual growth rate
%



1 Average annual growth for cohort of non-outperformer emerging economies as a whole.
NOTE: Figures may not sum to 100% because of rounding.

SOURCE: World Bank World Development Indicators; McKinsey Global Growth Model; McKinsey Global Institute analysis

The $11 trillion prize and how we calculate it

We modeled the economic impact in global trade using our McKinsey Global Growth Model and find that this additional growth in productivity could increase exports from middling and underperformer emerging economies by $5 trillion over the next 15 years compared with consensus forecasts.[210] That would be equivalent to 28 percent of total global exports. At the same time, we estimate that total imports from middling and underperformer emerging economies can grow by more than $6 trillion when compared with the baseline scenario. In other words, the additional demand generated by increasing productivity growth in emerging economies might more than sufficiently absorb the additional production.

This productivity boost would require a significant increase in investment. Using historical per capita data, we estimate that the targeted increase in productivity would require these economies to commit to investing between 21 and 27 percent of GDP every year across public and private sectors. This amounts to an increase of between two and nine percentage points. That would still be below the rate observed, on average, for each recent outperformer (27.6 percent) and long-term outperformer (31.2 percent) during their growth periods.[211]

This aspirational scenario promises large implications for the world economy, with the extra economic activity in middling and underperformer economies directly adding about $8 trillion to global GDP. But the benefits would not stop there. Increased economic activity and income in these economies could, in turn, increase demand for all sorts of goods and services from other economies—machine tools from Germany, say, or software from the United States or beef from Australia—thus feeding the pro-growth agenda in those countries. As a result, high-income and outperformer economies also stand to benefit and could add $3 trillion to their combined GDP by 2030, according to our analysis.

In total, then, the global economy could grow at an average of 3.5 percent a year, compared with consensus forecasts of 2.8 percent. This would raise global output by $11 trillion annually, or about 10 percent, by 2030—roughly comparable to adding another China (Exhibit 33). Beyond increasing global GDP, such an improvement would directly and materially affect hundreds of millions of people living in middling and underperformer economies. Average GDP per capita could reach $12,100 by 2030, more than 50 percent above the current forecast of $7,900. At the same time, around 200 million more people would be elevated to the consuming class, and 140 million additional people—an increase of almost two percentage points of global population—would be lifted out of extreme poverty when compared with the consensus forecast.

Accelerated middling performer and underperformer growth could also change global competitive dynamics at the firm level. We estimate the total number of middling performer and underperformer companies with more than $1 billion in revenue could more than triple in the next 15 years, while the total number of projected billion-dollar companies could rise by 13 percent globally. About half of the world's billion-dollar companies could be headquartered in emerging economies by 2030, under this hypothetical scenario.[212]

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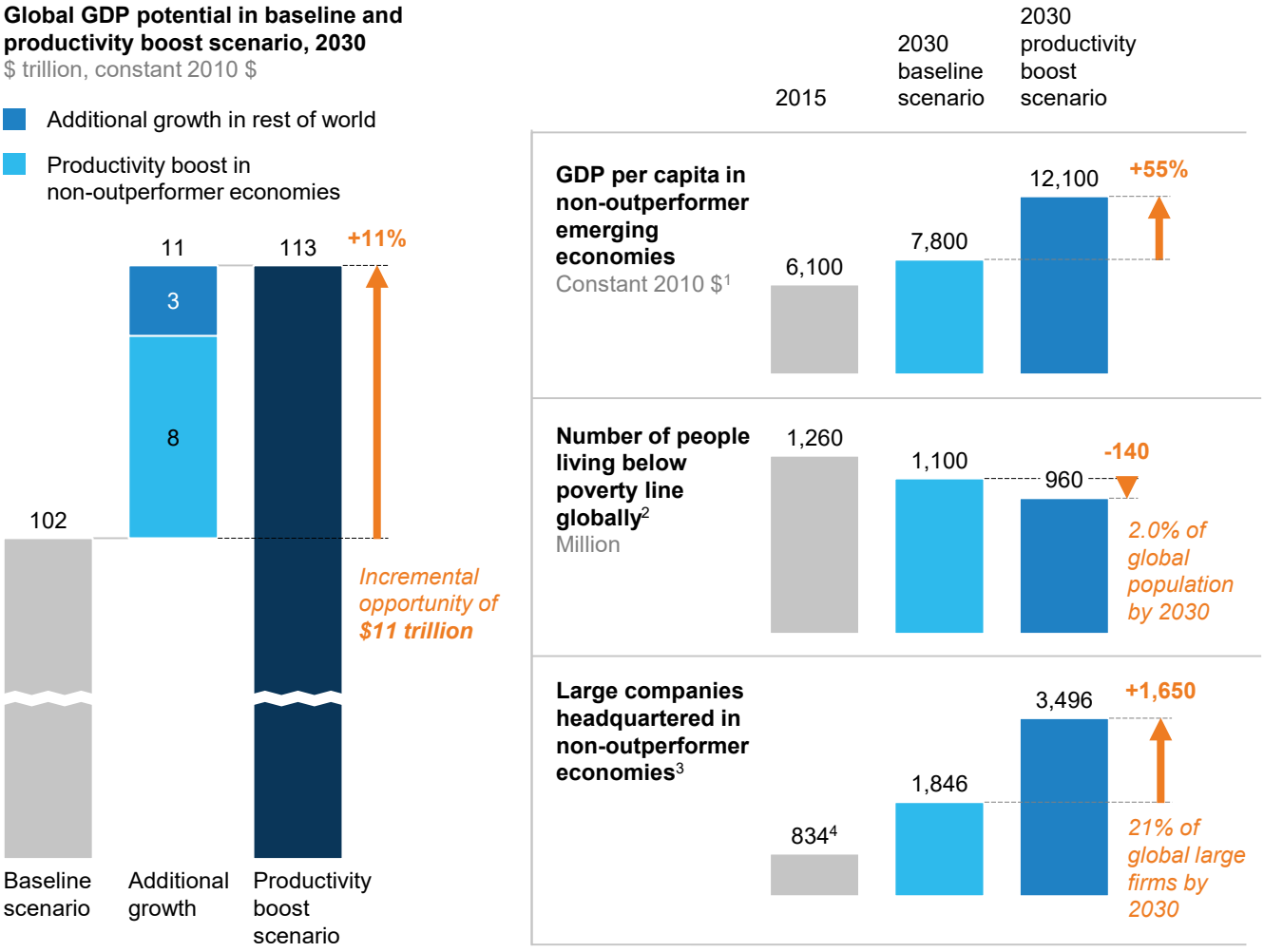
[210] McKinsey Global Growth Model.

[211] These figures refer to gross fixed investment, which includes investment in housing, commercial and industrial real estate, equipment and machinery, roads, railroads, ports, airports, power plants, electric grids, water-supply systems, and other infrastructure.

[212] See technical appendix for details of our methodology.

Exhibit 33

Accelerating growth in emerging economies can make significant contributions to the global economy.



1 Rounded to nearest hundreds.
2 Poverty defined as population living with less than $3.20 per day (in purchasing power parity terms using real 2011 US dollars); includes 91 economies analyzed in report.
3 Public and private companies with annual revenue greater than $1 billion.
4 Data for large companies is from 2010.
NOTE: Figures may not sum to 100% because of rounding.

SOURCE: World Bank World Development Indicators; McKinsey Global Growth Model; McKinsey Global Institute analysis

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The expansion of global trade, the spread of market economies, and the introduction of many productivity-enhancing technologies have had a profound impact on developing economies in many parts of the world over the last half century—particularly the past 20 years and especially in Southeast Asia. More change is possible as the most successful developing economies—the 18 outperformers—continue to expand, and as the big, globally competitive companies they have spawned seek to conquer new markets. In the concluding chapter, we take a closer look at the strengths and challenges of emerging countries and regions around the world—and some countries that appear well placed to join the next wave of outperformers.

Colombians working in a metal factory.
© Andresr/E+/Getty Images

5. LOOKING TO THE NEXT OUTPERFORMERS

Our analysis of the long-term economic performance of 71 emerging economies provides a historical perspective and some lessons about the factors driving development and exceptional growth, but what happens next? What are the strengths of these economies today and what are the main challenges for the immediate future? To address this question, we compiled 13 indicators of economic performance and potential that highly correlate to per capita GDP growth for each of the countries. These indicators track performance across key drivers of productivity, income, and demand that are core to a pro-growth agenda (see Box 7, "Our indicators of economic performance").

Box 7. Our indicators of economic performance

Many complex factors determine the economic performance of a country, and the indicators we have selected for our analysis are not intended to be comprehensive or prescriptive. Indeed, we started by looking at more than 50 indicators and whittled the list down to 13 that we deemed priorities for the pro-growth agenda described earlier. These are non-exhaustive gauges of progress toward that agenda which, taken together, can help identify country and regional strengths and potential leakages.

The 13 indicators fall into three categories: the three pro-growth drivers of productivity, income, and demand. Where possible, we use 20-year data for each of the metrics, from 1996 to 2016.[1] The categories are productivity drivers, income drivers, and demand drivers.

Productivity drivers are critical to economic growth. They consist of indicators that help explain capital accumulation, total factor productivity, and human capital. Eight indicators fall under productivity for the purposes of our analysis: domestic savings is a critical enabler of domestic investment, and in addition to foreign direct investment, it boosts capital accumulation. Improving total factor productivity requires improvements in innovation which we capture using the Global Innovation Index (published by Cornell University, INSEAD, and the World Intellectual Property Organization), as well as positive externalities of large firms, for which we include the growth in market capitalization of listed domestic companies. Improvements to the World Bank's Government Effectiveness score and inflation are key market efficiency drivers and therefore affect TFP. We also include the growth in government health and education expenditure as a core enabler of human capital.[2]

Income drivers explain how productivity enhancements and growth in a country's overall output are captured by households as wages or corporates as profit. Hence we consider rate of growth in household income and in corporate income from 1996 to 2014.[3]

Demand drivers are infrastructure investment from 2000 to 2015 and exports from 1996 to 2016. Apart from education and health, which are captured in productivity, infrastructure investment is a key public good and important driver of domestic demand. Finally, exports capture the ability to tap into international markets and global demand, while MGI's Connectedness Index gauges a country's connection to the global economy through cross-border flows of goods, services, digital, people, and finance.[4]

1 See technical appendix for details.

2 Domestic savings taken from World Bank's World Development Indicators and OECD; foreign direct investment and inflation from the IMF, market capitalization from the World Federation of Exchanges; government health expenditure from the World Health Organization; government education expenditure from UNESCO.

3 Household and corporate income taken from McKinsey Global Growth Model, with data from United Nations System of National Accounts.

4 Infrastructure spending taken from Global Insight and other national accounts; exports from the IMF. For the MGI Connectedness Index, see *Digital globalization: A new era of global flows*, McKinsey Global Institute, March 2016.

One insight that emerges from this analysis is that geographic regions have more in common in terms of their strengths and weaknesses than clusters defined by income level, growth archetype, or recent growth experience. In this chapter, we look at individual regions in more detail, highlighting where they are achieving elements of the pro-growth agenda—and where they still have work to do.

Our analysis suggests that most countries still need to fix many elements of their economies to achieve a pro-growth agenda. Even the best-performing region, East and Southeast Asia, faces challenges to sustain its growth, which has decelerated in some longer-term outperforming economies such as Singapore as they reach a high level of income. Other recent outperformers including Azerbaijan, Belarus, and Kazakhstan also face slowing growth, partly because of declines in resource prices.

Yet we also see considerable potential among countries that do not yet rank as outperformers, and identify some aspiring newcomers—from Bolivia to Sri Lanka—in our conclusion to this chapter.

REGIONAL STRENGTHS AND CHALLENGES

Our analysis of the recent performance of the 71 emerging economies reveals that countries within regions shared strengths and challenges across the heat map that other groupings, such as by performance or income level, do not. We have thus identified potential improvement areas for several regional clusters. We then validated and complemented our analysis with previous MGI research and academic literature.

That literature identifies some factors that could explain these regional commonalities. Some studies have pointed to institutional legacy created by shared colonial experiences, while others have pointed to shared history of geopolitical events as potential sources of lasting similarities.[213] Geography could affect natural endowments, such as resources, but proximity to other potential anchor economies or trade routes could create similar development paths.[214]

These commonalities may offer opportunities for regional cooperation focused on solving shared challenges. For example, the recent push among sub-Saharan African countries to enhance regional trade integration and build common infrastructure can be a way for these economies to address their lower global connectedness. Countries that are leaders in their region can be sources of regional demand or capital, or they can be partners in knowledge and technology. Historically, Singapore and Japan have played this role for other East and Southeast Asian countries such as Indonesia and Malaysia.

We look at the performance of seven regions and highlight key strengths and challenges. Exhibit 34 is a detailed heat map with each of the 13 indicators shown for each region.

[213] Daron Acemoglu, Simon Johnson, and James A. Robinson, "The colonial origins of comparative development," *The American Economic Review*, December 2001,Volume 91, Number 5, pp. 1369–1401; Nathan Nunn, *The importance of history for economic development*, National Bureau of Economic Research working paper number 14899, April 2009.

[214] Luigi Guiso, Paola Sapienza, and Luigi Zingales, "Does culture affect economic outcomes?" *The Journal of Economic Perspectives*, spring 2006, Volume 20, Number 2, pp. 23–48.

Exhibit 34

Our heat map analysis on 13 growth metrics highlights strong regional patterns.

Performance within emerging markets (quartile)[1] First Second Third Fourth

	▸ Regions[2]	Central Asia	East and Southeast Asia	South Asia	Central and Eastern Europe	Sub-Saharan Africa	Latin America	Middle East and North Africa
Description	**% of emerging market population**	1	36	30	7	12	10	5
	% of emerging market GDP	1	47	10	16	5	19	2
Economic performance	**Average GDP per capita** Real $ 2016	5,283	12,604	1,703	12,644	1,751	6,885	4,461
	Average GDP per capita growth CAGR, 1996–2016, %	5.5	4.4	3.7	3.1	2.5	1.9	1.6
Productivity drivers	**Domestic savings** CAGR, 1996–2016, %							
	Government effectiveness Change, 1996–2016, %							
	Market capitalization of listed domestic companies CAGR, 1996–2016, %							
	Global Innovation Index Rank change, 2013–16							
	Foreign direct investment CAGR, 1996–2016, %							
	Inflation Average, 2000–16							
	Government health expenditure CAGR, 2000–15, %							
	Government education expenditure CAGR, 1996–2016, %							
Income and demand drivers	**Household income** CAGR, 1996–2014, %							
	Corporate income CAGR, 1996–2014, %							
	Exports CAGR, 1996–2016, %							
	MGI Connectedness Index Score, 2016							
	Infrastructure investment CAGR, 2000–15, %							

1 Represents which quartile of the 71 economies the average of the archetype would fall in. For example, a green-colored square means the average of this archetype has a similar level in an indicator as top-quartile countries.

2 Central Asia: Azerbaijan, Kazakhstan, Kyrgyz Republic, Turkmenistan, and Uzbekistan. East and Southeast Asia: Cambodia, China, Hong Kong, Indonesia, South Korea, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam. South Asia: Bangladesh, India, Nepal, Pakistan, and Sri Lanka. Central and Eastern Europe: Belarus, Bulgaria, Czech Republic, Greece, Hungary, Poland, Romania, Russian Federation, Serbia, Slovak Republic, Turkey, and Ukraine. Sub-Saharan Africa: Angola, Cameroon, Côte d'Ivoire, Ethiopia, Ghana, Kenya, Mozambique, Nigeria, Rwanda, Senegal, South Africa, Tanzania, Uganda, Zambia, and Zimbabwe. Latin America: Argentina, Bolivia, Brazil, Chile, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Peru, and Venezuela. Middle East and North Africa: Algeria, Egypt, Iran, Jordan, Lebanon, and Morocco.

SOURCE: World Bank; OECD; IMF; WIPO; INSEAD; WFE; WHO; UNESCO; McKinsey Global Growth model; Global Insight; McKinsey Global Institute analysis

Central Asia's rapid growth depends on natural resource extraction

Central Asia is one of the fastest-growing regions in the world, containing four of the recent outperformers—Azerbaijan, Kazakhstan, Turkmenistan, and Uzbekistan.[215] Only the Kyrgyz Republic is classified as an underperformer. The region accounts for just 1 percent of the GDP of our universe of 71 emerging economies. On average, the region's per capita GDP growth was 5.5 percent between 1996 and 2016, with average annual labor productivity growth of 4.5 percent between 2010 and 2015. Domestic savings reached 36 percent of GDP, while both household income and consumption grew by more than 5 percent annually between 1996 and 2016.

More than 80 percent of the goods exported from Turkmenistan and Azerbaijan are oil- and gas-related products, while exports from Kazakhstan, the Kyrgyz Republic, and Uzbekistan are primarily commodities and raw materials.[216] While exports of natural resources can provide a temporary boost to the economy, they do not guarantee sustained economic growth (see Box 8, "Economic growth in resource-driven economies").

However, our heat map analysis shows that outperforming economies from this region distinguish themselves from underperforming resource-driven economies such as Nigeria and Russia thanks to high investment and savings rates. Domestic savings in Azerbaijan, Kazakhstan, and Turkmenistan average 56 percent of GDP, and investment rates average 33 percent of GDP, compared with Nigeria's 24 percent savings rate and 16 percent investment rate. Elevated savings and investment rates have given these economies an average capital contribution to annual GDP growth of 5.8 percent, compared with Nigeria's 2.8 percent and Russia's 1 percent.

Central Asia is relatively well positioned to make further improvements, because of the growing efficacy of its public service and improvements in business environment. Central Asia has the highest improvement in government effectiveness—as well as ease of doing business scores—of any region, thanks to the performance of its outperforming economies in these dimensions. The region also outperforms all others in the United Nations' e-government score, showing the bureaucratic commitment to adapt to new technologies.[217] To ensure sustained growth, these countries will need to convert these government improvements into sectorial transformation: this region still underperforms in the digital economy component of McKinsey's Digital Maturity Index, partly because of its low level of economic diversification.

Azerbaijan and Kazakhstan have established sovereign wealth funds to cushion the volatility of commodities markets and fund government spending. While growth has been exceptional, there are opportunities to replicate those benefits in other sectors of the economy and create better conditions to sustain economic growth, especially in noncommodity tradable sectors. These economies can learn from the experience of countries such as Malaysia which managed to transition away from resource-driven economies and into sector diversification.

Large firms in the region grew robustly, with corporate income averaging 14 percent annual growth between 1996 and 2014. Market capitalization of publicly listed companies grew by almost 7 percent between 1996 and 2016. Growth was mainly driven by energy firms such as Kazakhstan's KazMunaiGas Exploration Production, which benefited from high oil prices during this period.

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[215] In our analysis, Central Asia includes Azerbaijan, Kazakhstan, the Kyrgyz Republic, Turkmenistan, and Uzbekistan. Other countries were not included because they have populations of fewer than five million or data availability is poor.

[216] *The Atlas of Economic Complexity.* Cesar A. Hidalgo and Ricardo Hausmann (2018).

[217] United Nations E-Government Survey, 2016.

Box 8. Economic growth in resource-driven economies

In this report, we have focused our analysis mostly on the manufacturing and service sectors. However, some countries, including Indonesia and Kazakhstan, have benefited from rich reserves of natural resources. Economies where oil, gas, or mineral sectors play a dominant role often fail to convert their resource endowments into long-term prosperity. In fact, almost 80 percent of resource-driven countries have per capita income below the global average and, since 1995, less than half of these countries have managed to reach average global GDP growth.[1]

There is rich academic literature about this so-called resource curse, explaining the slower rate of growth of resource-driven countries compared with other economies. Resource-driven countries are more exposed to economic volatility via fluctuating commodity prices. These economies also usually face more difficulty in developing prosperous export-oriented sectors because natural resource exports appreciate the local currency, which increases the prices of exports in other sectors and makes them less competitive in world markets (a phenomenon known as the "Dutch disease").[2] Resource-driven countries are also associated with income disparities and with internal conflict over the control of natural resources.

The resource curse need not hold if appropriate steps are taken. Indeed, six of the 18 outperformers are resource-rich. Indonesia and Malaysia, for example, have beaten the resource curse by ensuring that the growth of resource-driven sectors led to the development of other sectors and had local spillover effects. Both countries set local-content targets, ensuring the use of local manpower and goods and services from local suppliers in other industries. Malaysia also invested in job training to ensure that local employees and suppliers could fulfill the needs of the extractive sector. Petroliam Nasional Berhad (Petronas), the Malaysian state-owned oil company, allows other firms to explore and extract oil from national territory via production-sharing contracts. These agreements require companies to invest a portion of their profits into R&D locally, ensuring productivity growth and innovation.

Other countries have countered some of the issues of resource-driven growth by using fiscal mechanisms to capture budget surpluses during periods of relatively high commodity prices or output, which offset deficits during periods of low prices. For example, Chile and Norway have established fiscal rules to smooth government expenditures over time to reduce the effects of price volatility. Though many countries have had mixed results with this model, Chile and Norway succeeded in part because of strong governance and fiscal discipline.

While income from resources can be a source of capital for emerging markets, the relevance of the pro-growth agenda holds. To escape the resource curse, countries have directed revenue from natural resource exports into investment to boost productivity, income, and demand in other sectors of the economy. For example, trade unions in Norway historically bargained for higher wages while government expenditure as a percentage of GDP is higher than the average in the rest of Europe, supporting productive investment and domestic consumption through strong civil engagement. Saudi Arabia and other countries are engaged in major reforms to diversify away from oil by investing in several productive sectors and enablers such as infrastructure and education.[3]

Previous MGI research estimates that 540 million people could be lifted out of poverty by effective development and use of natural resource reserves.[4] Resource-rich countries can learn from some of these examples to fully translate the richness of their natural endowments to the well-being of citizens.

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1 *Reverse the curse: Maximizing the potential of resource-driven economies,* McKinsey Global Institute, December 2013, on McKinsey.com.

2 Jeffrey D. Sachs and Andrew M. Warner, "Natural resource abundance and economic growth," in *Leading Issues in Economic Development*, G. Meier and J. Rauch, eds., Oxford, UK: Oxford University Press, 1995 and revised 1997.

3 *Saudi Arabia beyond oil: The investment and productivity transformation*, McKinsey Global Institute, December 2015, on McKinsey.com.

4 Ibid. *Reverse the curse*, McKinsey Global Institute, December 2013, on McKinsey.com.

East and Southeast Asia will need to address income inequality and maintain its strong growth record

All seven of the 50-year outperforming economies we identified—China, Hong Kong, Indonesia, Malaysia, Singapore, South Korea, and Thailand —and four of the 11 20-year outperformers—Cambodia, Laos, Myanmar, and Vietnam—are found in the East and Southeast Asian region. The region's only non-outperforming economy, the Philippines, has grown very strongly recently and could potentially break through into the ranks of outperformers if it maintains its trajectory. This region is by far the largest in economic terms, accounting for 47 percent of the total GDP of all 71 emerging economies. On average, per capita GDP in this region grew by 4.4 percent per year between 1996 and 2016. Domestic savings and investment rates in East and Southeast Asia are the highest of any region. On average, savings in these countries represented 31 percent of GDP while investment approached 30 percent of GDP. The area is also outperforming others in terms of connectedness and exports—East and Southeast Asian countries rank above other emerging economies in the MGI Connectedness Index. Exports in the region represent 71 percent of GDP on average, and the complexity and diversity of most countries' export portfolios are high.

However, some of the most reliable and consistent outperforming economies over the past 50 years appear to have hit speed bumps. In each of the past five years, annual per capita GDP growth in Hong Kong, Singapore, and South Korea slowed to below 3 percent and labor productivity growth fell below 2 percent. For countries that reach high-income status, slowing down is quite natural: the rapid growth will not continue indefinitely. For example, in 2016, Hong Kong's GDP per capita reached $36,726, Singapore's $52,601, and South Korea's $25,459—just behind the United States and ahead of Denmark and Sweden. In many advanced economies, too, labor productivity growth remains at a historical low since the 2008 global financial crisis.[218] Nonetheless, these countries have their own unresolved productivity issues: for example, South Korea is a world leader in high tech and automotive manufacturing, but its service sector is still fragmented and has low productivity.[219] Slowing wage growth and soaring spending on housing and education have left more than half of middle-income households cash flow-constrained. Household debt has more than doubled, and South Korea's household saving rate has declined. Moreover, the export-oriented growth formula that helped the large Korean conglomerates drive economic development and raise incomes may be running out of steam.[220] In Singapore, there are also signs that the half century of economic growth that buoyed governments, households, and companies may be coming to a close. Investment growth has slowed significantly since 2008, and consumption growth has also been uncharacteristically sluggish.[221]

An important opportunity for the region as a whole involves reducing inequality. The majority of the population in higher-income economies such as Singapore and South Korea is already middle class or above, but less developed economies including Cambodia, Thailand, and Vietnam have relatively few middle-class households and are slow to add more. Income inequality, as measured by the Gini coefficient, is also high, with most countries in the region showing higher levels of inequality than the emerging-economy average. Some countries in the region, such as China and the Philippines, are among the world's most unequal. While South Korea's Gini scores are less unequal than many other countries in the region, wide wage gaps between people who work for SMEs and those

[218] *Solving the productivity puzzle: The role of demand and the promise of digitization*, McKinsey Global Institute, February 2018, on McKinsey.com.

[219] Stephen S. Roach et al., *South Korea: Finding its place on the world stage*, McKinsey.com, April 2010.

[220] *Beyond Korean style: Shaping a new growth formula*, McKinsey Global Institute, April 2013, on McKinsey.com.

[221] Diaan-Yi Lin, "Securing Singapore's prosperity amid greater global uncertainty," McKinsey & Company, September 2016, McKinsey.com.

employed at large companies have become a focus of criticism and concern, as these gaps may augur growth in inequality.[222]

Cambodia, Laos, Myanmar, the Philippines, and to some extent Indonesia face somewhat different challenges. For example, Cambodia, Indonesia, and Laos have limited diversity and complexity in their export products, which focus primarily on labor-intensive goods and commodities.[223] Indonesia and the Philippines have made little progress on improving their low scores on government effectiveness despite the overall region's high performance.

East and Southeast Asia is also home to some of the world's most dynamic and competitive large firms. Corporate income grew at 6 percent annually on average between 1996 and 2014, whereas the market capitalization of listed domestic companies grew by 7 percent between 1996 and 2016. The number of listed domestic companies also grew by 4 percent during the same period.

South Asia can benefit from global ties, economic complexity, and better government

India, the largest economy in the South Asia region, is a recent outperformer while Bangladesh and Sri Lanka have undergone growth spurts that could enable them to join the ranks of outperformers in the future if they can maintain the momentum. Nepal and Pakistan have shown a consistent pattern of growth in the middling category, and there are no underperforming economies in the region. South Asia showed per capita GDP growth of 3.7 percent from 1996 to 2016, mainly driven by robust labor productivity growth.[224] Both household income and household consumption grew by more than 4 percent per year in the same period.

Despite this income growth, South Asia has one of the highest inequality levels in the world, as measured by the Gini coefficient, and its poverty level is high—on average, 10 percent of the population lives below the poverty line and less than 40 percent is above the middle-income threshold.[225] In India, concerted government action has been taken in recent years to boost access, but around 46 percent of households still do not have access to basic services such as electricity and sanitation.[226] A large share of the population in the region still depends on agriculture. More than 70 percent of the workforce in Nepal and slightly more than 40 percent in Bangladesh, India, and Pakistan is devoted to agriculture.[227] However, the region has seen one of the highest rates of growth in nonagriculture employment, and continuing this trend can help lift more people into the middle class and improve broader income growth.

South Asia could also increase the level and complexity of its exports. Other than India, the region overall shows low levels of connectedness to the rest of the world. Exports represented on average 18 percent of GDP from 2000 to 2015, compared with the nearly 62 percent of GDP observed in all outperforming economies—even India's exports represent only 20 percent of its GDP. While countries in the region have large domestic markets, accessing global demand will still be a promising path to increase demand, especially given low income levels of domestic consumers. The diversity and complexity

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[222] Vladimir Hlasny, "How Korea's labor market breeds social inequality," *The Diplomat*, November 8, 2016, thediplomat.com.

[223] *The Atlas of Economic Complexity*, Harvard University, Center for International Development, 2018, atlas.cid.harvard.edu.

[224] Our analysis includes India, Pakistan, Bangladesh, Nepal, and Sri Lanka. Bhutan is not included in this report as population is fewer than five million.

[225] A household in poverty is defined as a household with annual income of less than $5,000, using PPP constant 2012 prices.

[226] *From poverty to empowerment: India's imperative for jobs, growth, and effective basic services*, McKinsey Global Institute, February 2014, on McKinsey.com.

[227] World Bank World development indicators.

of their export portfolio could be improved as well. More than 80 percent of exports of goods from Bangladesh are related to the textile and apparel industry; the figure is more than 40 percent for Nepal, Pakistan, and Sri Lanka. India, as an exception, has gradually increased the exports of automobiles, machinery, chemicals, and pharmaceuticals.[228]

Governments in the region can improve the quality of their institutions and bureaucracy. South Asian countries have some of the lowest levels of improvement in the World Bank's Government Effectiveness Index. For example, previous MGI research showed that in 2012, some 50 percent of public spending on basic services in India did not reach citizens because of inefficiencies in governance and execution. Recent efforts to address this could be an inspiration for countries in the region. For example, India created a digital identification system for its residents, which, along with a drive for universal financial inclusion, was used to deliver some social transfer programs directly to citizens.

The region has the most affordable internet access on average, according to the International Telecommunication Union, and the highest percentage of services exports coming from the ICT sector, thanks in large part to India's IT service giants.[229] However, the region also suffers from the lowest average connection speeds and poor average broadband access across regions, limiting broad digital access.

Market capitalization of publicly listed companies grew the fastest in this region at 8 percent annually on average between 1996 and 2016. Although the number of firms grew more moderately at 1 percent, corporate income saw a significant increase of 9 percent annually on average between 1996 and 2014.

In Central and Eastern Europe, capital investment and sluggish wage growth are key

The Central and Eastern Europe region has one recent outperforming economy—Belarus—while most others (Bulgaria, the Czech Republic, Greece, Poland, Romania, Serbia, the Slovak Republic, and Turkey) have a middling performance. Russia and Ukraine are underperformers.[230] Before the onset of the global financial crisis of 2008, Central and Eastern Europe was among the fastest-growing regions in the world, with its countries reaching an average annual per capita GDP growth rate of nearly 5 percent between 2000 and 2007. Emerging from decades of socialism, the region privatized state-owned industries, driving productivity growth and attracting foreign direct investment. The financial crisis, however, exposed significant weaknesses in these economies, including their dependence on foreign capital to drive domestic consumption and production.[231] The region nonetheless has the largest GDP per capita, at more than $12,600, slightly ahead of East and Southeast Asia.

Our heat map shows that per capita GDP growth was, on average, 3.1 percent from 1996 to 2016, with both low labor productivity growth and low employment growth—a consequence of productivity stagnation and demographic decline. Total employment in Belarus, Bulgaria, Greece, Romania, and Ukraine has declined 1 percent annually or more since 2010, while it has remained almost flat in the Czech Republic and Russia.[232] Despite these negative trends, some countries in the region have had positive results. Poland and Romania had

[228] Cesar A. Hidalgo and Ricardo Hausmann *The Atlas of Economic Complexity,* Harvard 2018.

[229] Although India leads these trends, other countries in the region share them to a lesser extent: Bangladesh, Nepal, and Pakistan have limited service exports but high rates of ICT as a percentage of total service exports, while executives' perception of the educational readiness of Sri Lanka surpasses the average of most other regions.

[230] We include Turkey and Greece in Central and Eastern Europe for all calculations, despite these countries being classified differently in other sources.

[231] *A new dawn: Reigniting growth in Central and Eastern Europe,* McKinsey Global Institute, December 2013, on McKinsey.com.

[232] From the Conference Board Total Economy Database.

robust per capita GDP growth of around 3 percent a year from 2010 to 2015. Poland has grown per capita GDP over the last 20 years at an annual average rate of 3.7 percent, thanks in part to its high international connectivity, macroeconomic stability, and consistent political and economic reforms. These factors led to some of the highest scores in the region in the World Bank's Government Effectiveness and Ease of Doing Business indexes even after the recession.[233]

A closer look at the drivers of economic growth shows that countries in the region have relatively low contributions of capital to GDP growth when compared with other emerging economies. It should be noted, however, that Poland, Romania, and Turkey had higher recent growth rates and have higher contribution of capital to GDP growth. Countries in the region spend, on average, 3 percent of GDP on infrastructure. Recent MGI research estimated that the region would need to invest more than 5 percent of GDP in infrastructure to regain the 4 to 5 percent GDP growth rates of the pre-crisis era. More than 20 percent of infrastructure investment would need to go into roads, where trucking productivity is below EU levels.[234]

Domestic savings for countries in Central and Eastern Europe are also low: savings represented, on average, 21 percent of GDP from 2010 to 2015, below the levels observed in outperforming economies (34 percent) in the same period. While it is possible to finance investment with foreign capital, foreign direct investment in the region has decreased since the 1990s and is currently relatively low compared with other regions. According to the World Bank, in 2017, net inflows of FDI represented 2 percent of GDP on average, compared with 5 percent in 2007.[235]

Growth of household income and consumption lags behind in these Central and Eastern European countries, however. Household income grew 2 percent annually from 1996 to 2016, while household consumption grew 1.1 percent per year between 2010 and 2015. In both areas, the region is among the lowest performing in the world. Corporate income growth, by contrast, is high, at 8 percent annually on average, suggesting that growth was mostly captured by profit rather than wage growth. The market capitalization of listed domestic companies grew by almost 6 percent and the number of companies grew by 4 percent between 1996 and 2016.

Our heat map also reveals regional strengths for Central and Eastern Europe in these dimensions. Less than 2 percent of the population lives below the poverty line, and nearly two-thirds are above the middle-class threshold.[236] Income inequality in this region is among the lowest in the world. The share of the labor force engaged in rural agricultural work is the lowest of any region, with nearly 90 percent of all labor employed in manufacturing and services. Finally, the region is well connected to international markets, as it shares borders with Western Europe, Asia, and the Middle East. More important, the region exports more complex and diversified products.[237]

Another promising opportunity is the region's potential to tap into innovation and technology. It has the second-highest average score in McKinsey's Digital Maturity Index, and several "innovation clusters" are emerging in the region, such as Istanbul, Moscow, St. Petersburg,

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[233] *Lessons from Poland, insights for Poland: A sustainable and inclusive transition to high income status*, World Bank Group, 2017.

[234] *A new dawn: Reigniting growth in Central and Eastern Europe,* McKinsey Global Institute, December 2013, on McKinsey.com.

[235] World Bank World Development Indicators.

[236] In this section, a household in poverty is defined as a household with annual income of less than $5,000, using PPP constant 2012 prices.

[237] *A new dawn: Reigniting growth in Central and Eastern Europe,* McKinsey Global Institute, December 2013, on McKinsey.com.

and Warsaw.[238] Those centers are growing slowly but can be a model for showing other cities in Eastern Europe how to promote local research and development. The region also has strong access to ICT, with the highest average internet usage rates and penetration of B2C e-commerce among emerging market regions.[239] Additionally, Central and Eastern Europe already has the second-highest rate of ICT exports relative to total service exports (after South Asia), and the second-highest rates of ICT-related patents per capita (after East and Southeast Asia).[240]

To address their main leakages, countries in Central and Eastern Europe need to boost investment to infrastructure and productive sectors, using capital from increased domestic savings or FDI. Countries in the region can also incentivize the development of nascent innovation clusters to increase the impact of technology on productivity growth. In fact, the region has high potential of becoming a leader in digital technology development and adoption. A more dynamic economic environment, supported by policies to boost demand, can help increase the current low growth rates in household income and consumption.

Sub-Saharan Africa can focus on more sophisticated exports and better governance

This is the second poorest of our regions, with GDP per capita of about $1,750, or only about one-seventh that of East and Southeast Asia and of Central and Eastern Europe. Of the 15 countries we analyzed in the region, only one is an outperformer, Ethiopia, which has grown at more than five percent a year over the past 20 years. Ghana, Mozambique, and Rwanda, which have undergone recent growth spurts, have outpaced the long-term outperformers in the past 10 years. Tanzania and Uganda have been more consistent growers among middling economies, while Angola and Nigeria have had a more volatile past. Six underperforming economies—Cameroon, Côte d'Ivoire, Kenya, South Africa, Zambia, and Zimbabwe—have declined relative to the United States in the past decades, although Côte d'Ivoire's economic performance has improved.

On average, more than half of the population in the region works in agriculture, with nonagriculture employment growing only 2.5 percent over the past five years. Low per capita GDP is linked with high poverty rates—on average, over 31 percent of the population in these countries lives in a household with annual income of less than $5,000. Less than 17 percent of the population is above the middle-class threshold, and the figure is growing more slowly than in other regions.

There are also reasons to be optimistic about the future of sub-Saharan Africa. Per capita GDP growth was slightly above 3 percent per year between 2010 and 2015, while labor productivity grew by 2.5 percent annually in the same period, a higher rate than the Middle East and North Africa, Latin America, or Central and Eastern Europe. Similarly, investment rates reached almost 26 percent per year from 2010 to 2015, while household incomes grew 3.7 percent. Previous MGI research has highlighted some of the opportunities of sub-Saharan Africa. For example, it estimated that four industry groups—consumer-facing sectors, agriculture, resources, and infrastructure—together could generate as much as $2.6 trillion in revenue annually between 2010 and 2020, or $1 trillion a year more than before.[241] The large share of the population living in urban areas (above 40 percent) will also open new business opportunities.

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[238] Innovation clusters are cities, metropolitan areas, or states/provinces that generate an exceptional number of patents.

[239] Percentage of population using internet taken from International Telecommunication Union, 2016; B2C penetration taken from UNCTAD's B2C E-Commerce Index, 2016.

[240] On average, 27 percent of service exports are ITC related, compared with South Asia's 35 percent, according to the World Bank's World Development Indicators (2016); on average, countries in this region issue ten patents per million citizens.

[241] *Lions on the move: The progress and potential of African economies,* McKinsey Global Institute, June 2010, on McKinsey.com.

Our heat map provides some direction to identify the region's main leakages in the pro-growth agenda. First, the export-oriented sector's performance trails that of other regions. Exports as a percentage of GDP were below 30 percent on average, which is half the rate seen in outperforming economies. Connectedness to other regions is poor, and the diversity and complexity of the export portfolio is low. For example, more than 90 percent of exports from Nigeria and Angola are oil-related products. Similarly, more than 80 percent of exports from Ghana, Senegal, Tanzania, and Zimbabwe are commodities or natural resources. Without a strong and diverse export-oriented sector, economic growth can be limited by domestic income and be affected by the volatility of commodity prices.

Manufacturing offers a potential avenue to enhance export complexity and connectedness. Most sub-Saharan economies still have large opportunities to generate employment and increase productivity in the manufacturing sector, as their current manufacturing share of employment is low. Previous MGI research estimated that Africa could nearly double its manufacturing output from $500 billion in 2016 to $930 billion in 2025. Three-quarters of this potential growth could come just from meeting domestic demand—the continent currently imports more than one-third of the food, beverages, and consumer goods it consumes—while the other one-quarter could come from exports to other regions.[242]

While there is an opportunity to increase the size of the export-oriented sector, countries in this region will have to face some challenges first. Previous McKinsey research found that poor infrastructure, cumbersome customs processes, and lax compliance with social and environmental norms by countries in East Africa limit their ability to host apparel makers and other labor-intensive manufacturers.[243] Talent and labor also pose a challenge. Academic research has highlighted the current challenges in the level of education in the workforce and the need to ensure that the supply of talent matches changing demands of local companies, particularly for recent entrants to the labor market.[244] Other research has also highlighted the relatively high labor costs in the region compared with non-African countries with similar levels of income. A notable exception to these limitations is Ethiopia, which has used labor-intensive manufacturing to achieve stronger growth.[245] Countries focused on oil exports face the challenge of currency appreciation when seeking to offer competitive prices in other export sectors.

Our heat map also shows that the financial sector is relatively underdeveloped in most of sub-Saharan Africa. Savings rates represented 14 percent of GDP, while domestic credit to the private sector was around 30 percent of GDP between 2010 and 2015. While low savings and credit availability have not necessarily translated to low investment rates for all countries, they can pose risks if there are insufficient resources to support investment.

Additionally, there are opportunities to improve government effectiveness across most countries in the region. While a few economies—Côte d'Ivoire, Kenya, and Zimbabwe—showed improvement in the World Bank Government Effectiveness Index from 2010 to 2016, other countries in the region have not. This region has one of the lowest average scores in the Ease of Doing Business Index, but is improving at the second-fastest rate, indicating that these countries are focused on improving the environment for their private sectors. The market capitalization of listed domestic companies grew by 3 percent between 1996 and 2016 while corporate income grew by 7 percent between 1996 and 2014.

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242 *Lions on the move II: Realizing the potential of Africa's economies,* McKinsey Global Institute, September 2016, on McKinsey.com.

243 Achim Berg, Saskia Hedrich, and Bill Russo, *East Africa: The next hub for apparel sourcing?* McKinsey & Company, 2015, McKinsey.com.

244 For challenges to youth employment and policy recommendations, see Miriam Altman, Volker Schöer, and Nimisha Rama, *Education and youth employment in Sub-Sahara Africa: Linkages and policy responses,* African Economic Research Consortium, 2013.

245 Alan Gelb,et al., *Can Africa be a manufacturing destination? Labor costs in comparative perspective*, Center for Global Development working paper number 466, October 2017.

Sub-Saharan Africa shows the lowest score in the McKinsey Digital Maturity Index. Countries in this region need to invest in digital infrastructure to ensure access, improve government's adoption of the latest technologies, and incentivize the development and adoption of ICT by local companies. However, this region has also experienced fast development especially in its mobile technology. Mobile phone penetration in the region has grown by more than 12 percent annually on average since 2010, which is the second fastest rate after East Asia and Pacific, according to the World Bank's Financial Inclusion Index; 7 percent of the adult population of these countries uses mobile payment technology, second only to East Asia and Southeast Asia, where 10 percent does.[246]

The biggest challenges for sub-Saharan African countries involve improving export industries and global connectivity, which may include investing in infrastructure and labor force training as well as improving government efficacy and strengthening financial services. Continuing improvements in technology, especially in mobile and digital innovation and connectivity, will enable sub-Saharan Africa to tap into technological advancements and drive productivity growth.

Latin America's hurdles include investment, savings, income distribution, and demand

Economic growth in Latin America has been slow compared with other developing parts of the globe. The region accounts for 19 percent of the GDP of all 71 of the emerging economies that we analyzed, but none of the 15 countries in Latin America makes the cut as an outperformer either over 50 or 20 years. The Dominican Republic and Peru have been accelerating recently, but some other countries in the region have underperformed. Chile, Colombia, and Ecuador have shown consistent growth patterns, while Argentina, Brazil, Guatemala, Honduras, Mexico, and Paraguay have experienced volatile growth. The economies of Bolivia, El Salvador, Nicaragua, and Venezuela have had low growth, while Bolivia and Nicaragua are showing recent signs of faster growth.

On average, annual per capita GDP growth in the region was 1.9 percent from 1996 to 2016, which is well below the growth rates of other regions such as Central Asia, Eastern Europe, or East and Southeast Asia.[247] Previous MGI research identified that countries from Latin America relied on an expanding workforce for growth, rather than on productivity gains. From 2010 to 2015, labor productivity in Latin America grew by only 0.6 percent per year, and all countries in the region are ranked in the bottom half of annual productivity growth globally.[248]

[246] This is influenced by Kenya's groundbreaking adoption of M-Pesa, but is also present in other countries of the region: 10 percent of the population of Rwanda and Uganda, and 6 percent of the population of Nigeria and Tanzania, report making mobile payments. World Bank Financial Inclusion Index, 2014.

[247] Numbers in this section show simple averages across the countries in the same region. These averages therefore represent the typical position for individual countries in the region, not the position for the region.

[248] *Where will Latin America's growth come from?* McKinsey Global Institute, April 2017, on McKinsey.com.

Low savings and investment rates—two critical components in the production and demand components of the pro-growth agenda—partially explain Latin America's lagging productivity growth. Countries in the region invested, on average, 22 percent of their GDP on fixed capital between 2010 and 2015, below the level achieved by outperformers of 32 percent. One constraint to investment is low domestic savings rates: on average, savings represented 17 percent of the GDP in a Latin American country from 2010 to 2015; in some cases, such as El Salvador, Guatemala, and Honduras, savings represented less than 5 percent of GDP. For comparison, the average saving rate across the outperforming economies was 34 percent of GDP in the same period.

The underdevelopment of the financial sector is a main barrier to increasing investment and savings in the region. Nearly half of all Latin Americans have no access to financial services, limiting their ability to accumulate savings.[249] On a related note, access to credit to the private sector is also far behind other regions. Domestic credit to the private sector averaged 40 percent of GDP in the five-year period we analyzed, while in outperformer economies this figure is above 70 percent.

The lack of investment in these regions also translates to a lack of spending in infrastructure, further constraining productivity growth. Latin American investment in infrastructure as a share of GDP averaged 2 percent between 2010 and 2015—lower than any other region in the world. It is estimated that Latin America needs to spend $7 trillion on infrastructure between 2016 and 2030 to fill current gaps, compared with the $5 trillion spent between 2000 and 2015. Greater private sector involvement can be one way to fill the gap—public-private partnerships accounted for only about 5 to 10 percent of total infrastructure investment in the region.[250] Corporate income grew at 7 percent between 1996 and 2014, much faster than household income at 2 percent annually on average. The market capitalization of listed domestic companies grew sluggishly at 1.3 percent between 1996 and 2016.

Another major issue faced by Latin American countries is income inequality. On average, Latin America has the highest inequality of any region, as measured by average Gini coefficient.[251] This inequality can be explained by wage disparity within the manufacturing and service sectors. Latin American countries, however, have substantially reduced extreme poverty: as of 2015, less than 4 percent of the population lived in households with income lower than $5,000 per year. Social transfer programs in the region, such as the conditional cash transfer programs in Brazil and Mexico, have been instrumental in improving the well-being of the most vulnerable people.[252]

Finally, Latin American countries can improve their connectedness to the world, as well as the diversity and complexity of exported products. Increased connectedness can drive rapid development, as it gives local companies a source of demand that is not constrained by domestic income and a source of capital that is not constrained by domestic savings. Recent MGI research found that Latin American economies—particularly those of Central America and Mexico—are highly dependent on trade with the United States, as 45 percent of exports and 32 percent of its imports concern trade with that country.[253] There is future potential for the region to strengthen ties with other regions. For example, the Chinese government made commitments in 2015 to double bilateral trade with the region to

[249] Ibid.

[250] Ibid.

[251] The Gini coefficient is a measure of income distribution in a country. The higher the score, the higher levels of inequality.

[252] Ariel Fiszbein and Norbert Schady, *Conditional cash transfers: Reducing present and future poverty*, World Bank Group, 2009.

[253] *Where will Latin America's growth come from?* McKinsey Global Institute, April 2017, on McKinsey.com.

$500 billion within 10 years, and to increase the stock of investment to $250 billion.[254] Under 2018's Santiago Declaration, the government of China and the Community of Latin American and Caribbean States agreed to increase FDI in the region through China's "Belt and Road" investment initiative, as well as to further increase bilateral trade and collaboration in issues such as climate change.[255]

The Middle East and North Africa face many challenges, starting with productivity

Like Latin America, the Middle East and North Africa (MENA) region contains no outperformers and its emerging economies show leakages across each dimension in the pro-growth agenda—productivity, income, and demand.[256] Overall, the performance is middling: most emerging economies in the region are middling economies, among which Egypt and Morocco have grown steadily, while Algeria, Iran, and Jordan have been more volatile. Lebanon is the only economy we analyzed in this region classified as an underperformer.

However, there are opportunities across all dimensions for these economies to drive the pro-growth agenda. This region was the only one where emerging economies' per capita GDP has actually declined in recent years, falling 0.6 percent per year from 2010 to 2015. Similar to Latin America, labor productivity has grown by only 0.9 percent annually in the same period. Recent MGI research found that 73 percent of GDP growth in the region in the past 15 years was explained by an expanding workforce, while only 27 percent can be attributed to labor productivity growth.[257] Domestic savings, infrastructure investment, and capital contribution to GDP growth for emerging markets in the MENA region have been relatively robust. However, total factor productivity in this region has declined substantially, suggesting lower adoption of technology and efficient production methods, among other reasons.

Emerging economies in the MENA region also show some of the lowest rates of household income and consumption growth in recent years. On average, household income has grown at a rate of 0.1 percent per year, while household consumption rose 0.7 percent annually from 2010 to 2015. Despite relatively high levels of savings and investment and robust availability of credit to the private sector, consumption has not been increasing. This suggests that depressed economic activity is behind the slow growth of these economies, rather than access to financial services or the availability of capital. The market capitalization of listed domestic companies stagnated, whereas corporate income grew by 8 percent annually on average between 1996 and 2014.

On a brighter note, economies in the region show low levels of poverty and a high share of population above the middle-class threshold—on average, more than 70 percent of the population is in the middle class. Recent MGI research found that, for example, Iran's share of households above the middle-class threshold is twice that of China, India, or Brazil. When adjusted for purchasing power, Iran's retail sales per capita are higher than those in Malaysia, Mexico, and Turkey. Finally, nearly 84 percent of all labor in this region is outside the agriculture sector, the second lowest of all the emerging-economy regions after Central and Eastern Europe. These examples indicate that there is potential for higher consumption and demand in the region, despite stalling growth in these dimensions.

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254 "Latin America and China: A golden opportunity," *The Economist*, November 17, 2016, economist.com.

255 Fabian Cambero and Dave Sherwood, "China invites Latin America to take part in One Belt, One Road," Reuters, January 22, 2018, reuters.com.

256 In our analysis, the MENA region includes Algeria, Egypt, Iran, Jordan, Lebanon, and Morocco. Other countries were not included as they are not considered emerging markets, have a population of fewer than five million, or have poor data availability.

257 *Where will Latin America's growth come from?* McKinsey Global Institute, April 2017, on McKinsey.com.

In terms of connectivity, MENA emerging economies are relatively well connected to major markets, such as Europe and the Gulf economies, and exports already represent more than 30 percent of their GDP, on average. However, there are opportunities to improve diversity in the export portfolio as well as the value added of the goods exported. These countries underperform in the economic complexity of their exports, meaning their economies are exporting relatively few and undifferentiated products. For example, almost 95 percent of Algeria's and more than 60 percent of Iran's exports of goods are oil-based products, while the export portfolios of Jordan and Egypt are predominantly composed of labor-intensive products and commodities.[258]

Countries in the region have some of the lowest government effectiveness scores, but more important, they have shown the least improvement in this score over the past six years. Finally, MENA economies on average show relatively low digital readiness. They are below the global average in McKinsey's proprietary Digital Maturity Index, along with lower-income economies in South Asia and sub-Saharan Africa. According to the World Economic Forum's Executive Opinion Survey, the region has the lowest score in business adoption of ICT, and the second-lowest score in business use of ICT for B2B transactions.[259] Increasing private-sector adoption of ICT can improve its total factor productivity and tap into further productivity opportunities through technology.

While the dimensions of leakages in the MENA region are similar to those in Latin America, the opportunities differ. The main priorities for policy makers seeking to boost production include translating the relatively high rates of savings into productive investment and promoting innovation and technological adoption. Other pressing priorities are education to improve productivity and the quality of institutions and bureaucracy to ensure successful implementation of policies and increase credibility.

EVEN AS SOME OUTPERFORMERS SLIP BACK, NEW STARS ARE RISING

The period 2011 to 2016 was characterized by significant swings in the global economy, in part driven by a sharp increase followed by an equally sharp decline in prices for natural resources as a long supercycle came to an end.[260] In this turbulent period, only 12 of the 71 emerging economies achieved the benchmark annual average growth of 3.5 percent and were in the top quartile of our heat map. Some of these 12 are regular outperformers including China and Myanmar, which continued to demonstrate a robust growth performance despite the more difficult global conditions.

We have outlined in our regional analyses how some consistent outperforming economies over the past 50 years, including Hong Kong, Singapore, and South Korea, have seen a slowdown in recent growth. At the same time, growth in other more recent outperforming emerging economies such as Azerbaijan, Belarus, and Kazakhstan has been affected by the fallback in prices of natural resources, on which they remain strongly dependent.

Despite the challenging global context, some emerging economies that have not yet reached the ranks of outperformers have nonetheless achieved consistent and rapid economic growth, and a number of them also score well across the 12 performance indicators we have identified. If these countries can continue along this trajectory of high growth and improving fundamentals, they could aspire to join the ranks of outperformers sometime in the future.

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[258] Ibid. *The Atlas of Economic Complexity,* 2018.

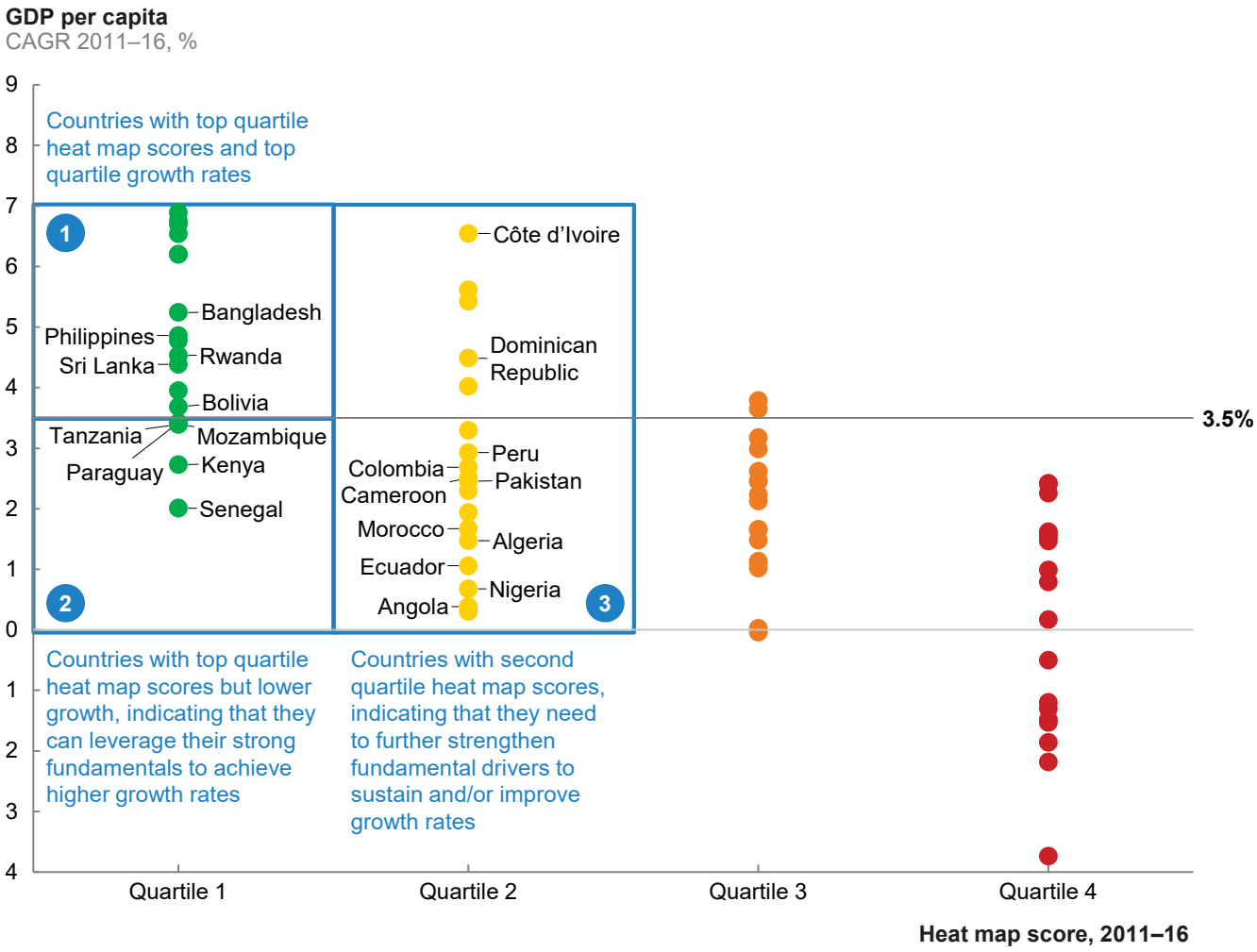
[259] MENA also has the second lowest perception of R&D collaboration between universities and the private sector.

[260] See *Beyond the supercycle: How technology is reshaping resources*, McKinsey Global Institute in collaboration with McKinsey's Global Energy & Materials Practice, February 2017, on McKinsey.com.

These aspiring outperformers fall into three categories (Exhibit 35).

Exhibit 35

Countries that achieved high GDP per capita growth and strong momentum on fundamental indicators since 2011 have the potential to join the next wave of outperformers.



NOTE: Heat map score is based on each country's performance across the 13 drivers of growth. Results are normalized for each indicator and summed with a weight based on the indicator's simple correlation to GDP per capita growth. Quartiles represent where the total country score falls. Overall correlation between heat map scores and GDP per capita growth is 0.8.

SOURCE: McKinsey Global Institute analysis

- Five countries that had been only middlers or underperformers achieved annual average per capita GDP growth that exceeded 3.5 percent in the years 2011 to 2016, thanks to recent rapid acceleration. At the same time, these countries ranked in the top 25 percent of our performance index, highlighting their ability to strengthen economic fundamentals. They are Bangladesh, Bolivia, the Philippines, Rwanda, and Sri Lanka.

- A second group of countries moved into the top of our pro-growth performance scores, reflecting improvement in key productivity, income, and demand drivers, but this performance has not been fully reflected in their annual average GDP per capita growth, which remains below 3.5 percent for the period 2011 to 2016. Their priority will therefore be to translate strengthening fundamentals into stronger growth. Five countries achieved top quartile heat map scores and GDP per capita growth rates between 2.0 and 3.5 percent: Kenya, Mozambique, Paraguay, Senegal, and Tanzania.

- Two other countries, Côte d'Ivoire and Dominican Republic, exceeded our benchmark 3.5 percent GDP per capita growth, although hurricane damage reduced Dominican Republic's growth rate from 5.4 percent in 2016 to 3.4 percent in 2017. This group achieved second quartile heat map scores, along with nine other countries that grew at a slower rate. This indicates that these countries need to focus on strengthening the pro-growth elements to attain and sustain high growth rates.

There is, of course, no guarantee that these or any other countries will outperform others, and indeed their performance will depend on many factors including their institutional capabilities to create and sustain a pro-growth agenda and to foster the competitive ecosystem that will enable the rise of productive large firms. However, the recent economic performance of these aspiring countries highlights the considerable growth potential across the developing world—and augurs well for individual countries if they can maintain it.

•••

The advances made by outperformers in the past decades have been remarkable. They have not just changed the global economy—becoming a main driver of global growth and consumption—but also improved the lives of hundreds of millions of people in a relatively short time. Congratulations are in order, but complacency is not. Even the best-performing regions in our analysis have room for economic improvement across a range of indicators. Fixing leakages to the system alone may not be enough for those emerging economies aspiring to join the ranks of outperformers—or maintain their status there. As the global landscape evolves rapidly, developing countries will face changing trends that may make their passage to outperformance more challenging, and in any case different, from the outperformers that went before them. Yet we still see plenty of opportunity in both individual countries and whole regions. Companies can seize that opportunity, as can policy makers. For the sake of the global economy, and the hundreds of millions of people who continue to live in poverty, it is important that they do so.

Team taking turns drilling the uranium wells in the Muyunkum desert in Kazakhstan.
© Andia/Universal Images Group Editorial/Getty Images

TECHNICAL APPENDIX

In this section, we describe the methodology used for the following analyses:

1. Outperforming emerging economies

2. Heat map indicators

3. Firm-level performance

4. Economic performance and contested leadership

5. Survey of companies

6. 2015–30 growth scenarios for emerging economies

1. OUTPERFORMING EMERGING ECONOMIES

For our analysis, we started with a list of 218 countries tracked by the World Bank, but excluded 99 countries with fewer than five million people in 2016, based on the World Bank's World Development Indicators, and a further 28 countries because of a lack of data. The countries excluded for data reasons are: Afghanistan, Benin, Burkina Faso, Burundi, Chad, Cuba, Democratic Republic of Congo, Guinea, Haiti, Iraq, Libya, Madagascar, Malawi, Mali, Niger, North Korea, Papua New Guinea, Republic of Congo, Sierra Leone, Somalia, South Sudan, Sudan, Syrian Arab Republic, Tajikistan, Togo, Tunisia, and Yemen; Taiwan was also excluded.

We bifurcated the remaining 91 countries into 71 emerging economies and 20 high-income countries, based on the World Bank's classification of the world's economies into four income groups: high, upper middle, lower middle, and low. The 20 high-income countries are those that the World Bank classified as high income in 1987 (then defined as countries with GNI per capita of $6,000 or more), while the 71 emerging economies include all countries that the World Bank classified as low-income, lower middle-income or upper middle-income countries in that year. 1987 was selected as the base year, as it was the year when the World Bank started the income-based classification of countries. Consistent with this approach, our set of 71 emerging economies includes Greece, Portugal, and South Korea, economies that were not high income per the World Bank classification in 1987 but achieved high-income status in 1994, 1996, and 1997, respectively. We made two exceptions: we treated Hong Kong and Singapore as emerging economies, although both were classified as high-income countries by the World Bank in 1987, as they grew exceptionally fast.

We further classify the 71 emerging economies into different cohorts—long-term outperformers, recent outperformers, middling performers (referred to as "middlers" in the exhibits), and underperformers—by analyzing GDP per capita growth over two periods, 50 years (1965 to 2016) and 20 years (1996 to 2016). The start date for tracking this latter group coincided with the founding of the World Trade Organization in 1995 and the subsequent expansion of free trade agreements. For countries where the data series commenced after 1965, we used the earliest year in the series and calculated the compound annual growth rate for the number of years for which data were available.

Our classification of emerging economies into different cohorts based on GDP per capita growth rates was based on certain thresholds. We set the threshold growth rate for long-term outperformers at 3.5 percent, which is the annual average growth rate required over a 50-year period for low-income and lower middle-income economies to achieve upper middle-income status. For low-income economies, the threshold growth rate is 4.3 percent, and for lower middle-income economies it is 2.8 percent. For recent outperformers, we set the threshold growth rate at 5.0 percent. Under the World Bank's income classification, low- and lower middle-income countries must attain average annual growth of 5.4 percent to move up one income level over a 20-year period. Growth of 3.7 percent is needed for the move from low to lower-middle income, while 7.1 percent growth is needed to rise from lower-middle to upper-middle income.

Throughout the report, we used simple averages of indicators' value for each country within a cohort. We avoided weighing the cohort averages by country GDP, to avoid the skewing of these averages by large countries and to retain the experience of smaller nations such as Singapore.

2. HEAT MAP INDICATORS

In Chapters 2 and 5, we analyze the characteristics of the emerging economies, by individual country and by region, along a series of indicators that describe performance on the dimensions of a "pro-growth" agenda. The 13 indicators fall into three categories: the three pro-growth drivers of productivity, income, and demand. Where possible, we use 20-year data for each of the metrics, from 1996 to 2016.

We started by looking at more than 50 indicators and whittled the list down to 13 that we deemed priorities for the pro-growth agenda. To establish the relevance of these indicators to overall GDP per capita growth, we developed a normalized performance score for each indicator for the various countries, and assigned a weightage for that indicator depending on its simple correlation with GDP per capita growth. The overall performance score for a country is the sum product of its individual indicator scores and the correlation scores for each indicator. We tested the link between this overall performance score and country GDP per capita growth across our data set, and established a strong correlation between the two. It should be noted that correlation is not the same as causation and that we did not conduct a multivariate regression analysis to explain GDP per capita growth. We used this approach only as a tool to confirm the relevance of our 13 indicators based on their correlation to long-term growth. For the regional heat map, we employed simple averages to categorize the performance of different regions across the 13 indicators.

Exhibit A1 describes the source and calculation methodology for each indicator used.

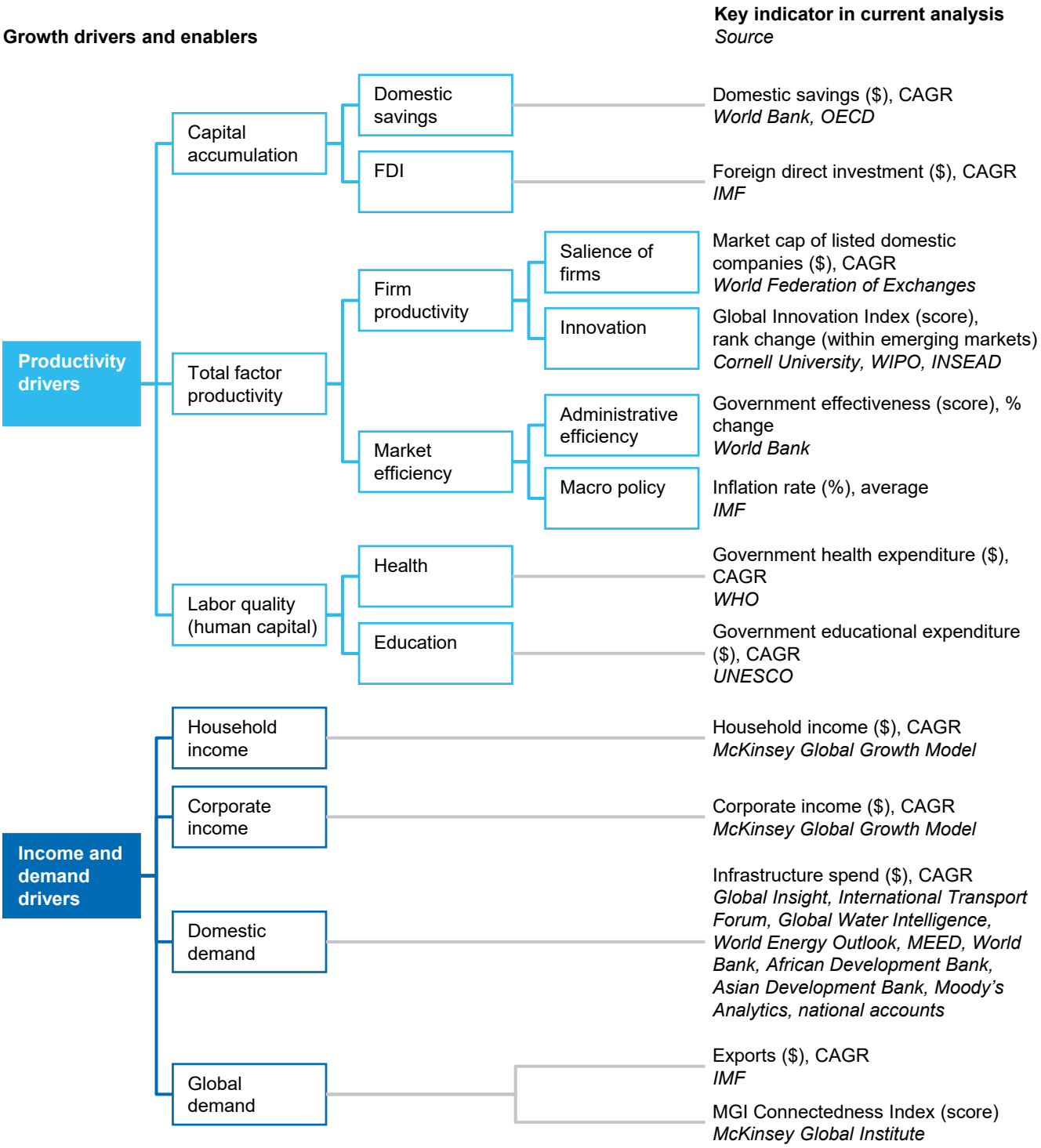
We color-coded our country and regional heat maps based on the quartile of the 71-country sample into which the individual country or regional average would fall, for each indicator. All our indicators (with the exception of the inflation rate) emphasize the pace of change or rate of improvement, which is critical in determining economic growth, rather than the absolute level achieved. But to acknowledge countries that have achieved the highest levels of absolute performance on each indicator, and may have limited scope to improve further, we also applied a secondary rule: we identified whether the country was in the top decile of all emerging economies on its absolute performance on that indicator, and treated such top performers similarly to top-quartile countries in terms of growth rate. For example, Singapore is ranked in the top decile of all countries on its ratio of domestic savings to GDP, ratio of FDI to GDP, ratio of market capitalization of companies to GDP, its global innovation index score, its Government Effectiveness Index score, and on infrastructure (based on an

additional World Bank infrastructure index score). We thus color-coded Singapore green on these dimensions.

We had data gaps in a few cases, as coverage of all countries is not available from the data sources we used. In such cases, we made estimates using related proxy indicators, such as the number of listed domestic companies for market capitalization and the infrastructure subindex of the World Bank's Logistics Performance Index for infrastructure spending.

Exhibit A1

To unpack opportunities for countries, we identified a set of key indicators.



SOURCE: McKinsey Global Institute analysis

3. FIRM-LEVEL PERFORMANCE

In Chapter 3, we analyzed firm-level performance using McKinsey & Company's Corporate Performance Analytics Tool (CPAT). This is a financial analytics solution based on McKinsey's valuation framework that provides insights and identifies trends in company peer groups, industries, and whole economies. CPAT integrates data from the world's leading data houses, such as S&P, Capital IQ, Moody's, and Thomson, to provide coverage of over 120,000 public companies worldwide (more than 95 percent of all global market capitalization). CPAT provides more than 1,000 indicators for these companies, adjusting existing indicators using proven methodology developed by McKinsey experts to ensure comparability and consistency, and estimating more complex indicators such as weighted average cost of capital and economic profits.

We selected seven countries from high-income economies accounting for 80 percent of high-income GDP: Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States. We also selected 20 emerging economies, accounting for 90 percent of emerging-market GDP: Argentina, Brazil, China, Egypt, Hong Kong, India, Indonesia, Malaysia, Mexico, Nigeria, Pakistan, the Philippines, Poland, Russia, Singapore, South Africa, South Korea, Thailand, Turkey, and Venezuela.

To analyze the behaviors of large firms, we filtered companies by revenue size in current prices as of 2016. We tested two cuts for revenue size, identifying 13,868 firms with more than $100 million in sales and 6,717 firms with more than $500 million in sales. We based our analysis on the larger companies, with more than $500 million, after determining that these accounted for more than 90 percent of revenue and net income of firms with revenues exceeding $100 million. These companies also show greater stability in financial indicators than smaller firms.

To identify the financial characteristics of high-performing firms, we defined these as companies with top-quartile performance in a five-year average of total return to shareholders (TRS). This indicator was chosen because it reflects a company's historical performance as well as changes in future expectation of value creation.

Finally, we analyzed the financial performance of firms for selected industries, including the performance of top-quartile firms in each industry based on the five-year TRS average. We mapped the Global Industry Classification Standard industries to 11 industries under the primary sector (energy and basic materials), manufacturing (automotive and assembly; high tech; pharmaceutical and medical products; consumer packaged goods), and services (construction and real estate; wholesale and retail trade; healthcare; finance and insurance; telecommunications, media, and technology; travel, transport, and logistics).[261]

4. ECONOMIC PROFIT DISTRIBUTION AND CONTESTED LEADERSHIP

One of the main firm-level analyses of our report is the study of economic profit generation across time by firms in outperforming emerging economies as well as high-income economies. Economic profit is a measure of a company's value creation in a period that considers a company's profitability as well as the weighted average cost of capital. By subtracting cost of capital from after-tax profits, this measure allows an "apples to apples" comparison of company value creation between geographies and industries with different risk-return characteristics. We employ it to understand how value creation is distributed among companies, and how that distribution changes in time, based on methodology and analysis from the McKinsey publication *Strategy beyond the hockey stick*.[262]

[261] Global Industry Classification Standard categorization by S&P Global and MSCI.

[262] Chris Bradley, Martin Hirt, and Sven Smit, *Strategy beyond the hockey stick: People, probabilities, and big moves to beat the odds,* McKinsey & Company, Hoboken, NJ: Wiley, 2018.

Economic profit was calculated with the following equation:

$$\textit{Economic profit} = \textit{NOPLAT} - \textit{invested capital} \times \textit{weighted average cost of capital.}$$

Weighted average cost of capital was estimated based on global industry betas. Given that most companies earn profit in local currencies, weighted average cost of capital was also adjusted for geography using a conversion factor based on the average inflation differential between local currencies and dollars over the period of the analysis.

This data set contains 2,284 large public companies in the three country cohorts for which complete data for economic profits from 2001 to 2015 were available. This data set does not consider companies that were listed or delisted after 2001, seeking to understand the competitive dynamics between companies that lasted throughout the entire period to avoid distortion from market entry or exit.

Our analysis ranked companies in each cohort by their average economic profit in the 2001–15 period and identified what percentage of average net economic profit in the group of companies in that period was captured by companies in each quintile of the distribution. This analysis found that average economic profit in the period was significantly lower in both groups of emerging markets than in advanced economies. The analysis also revealed that economic profit (and economic losses) was more concentrated for both groups of emerging economies. The net sum of average economic profit of companies in each quintile of the distribution was divided by the net sum of average economic profits of all companies in a cohort to illustrate this concentration of economic profits and losses.

A large concentration of profits and losses can signify either a market in which strategic differentiation is viable and necessary ("winner takes all") or a market in which large incumbents have a monopolistic or oligopolistic hold on profits. To identify which of these two dynamics characterized our emerging-market cohorts, we analyzed whether companies that were generating the majority of economic profits at the beginning of the period were the same companies generating the majority of economic profits at the end of the period. We identified companies in the top quintile of average economic profits generated between 2001 and 2005 and determined into which quintile of average economic profit generated in 2011–15 these companies fell.

5. SURVEY OF COMPANIES

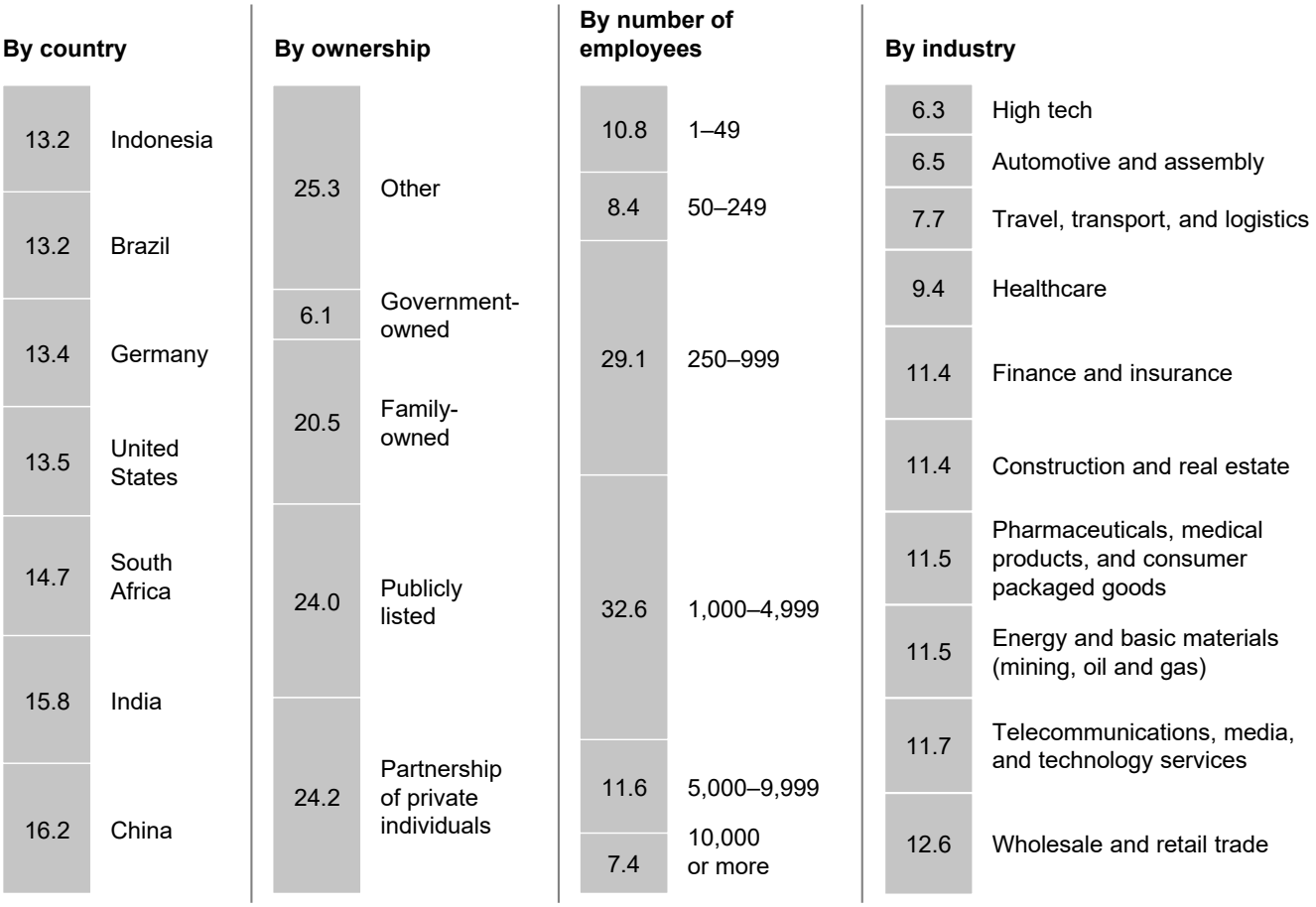
MGI undertook a survey in October 2017 focused on understanding the behaviors and performance of public and private firms in different archetypes. The survey was conducted online and through telephone interviews.

Our final survey results included 2,688 responses (2,172 companies with 250 or more employees and 516 SMEs with fewer than 250 employees), from seven countries and ten industries (Exhibit A2). To represent emerging-market countries across geographies, we chose the largest from each geography—Brazil, China, India, Indonesia, and South Africa. South Africa was chosen over Nigeria (though Nigeria has higher GDP) because it is less dependent on the oil industry and has more diversified sectors. Germany and the United States were selected to be able to benchmark results. Industries were chosen to create a mix of manufacturing and service sectors as well as a mix of knowledge-intensive, labor-intensive, and capital-intensive sectors, while covering a majority of the sectors of our client base.

Exhibit A2

MGI Firms Survey 2017: Respondent demographics.

100% = 2,688 respondents



NOTE: Figures may not sum to 100% because of rounding.

SOURCE: McKinsey Global Institute Firm Survey 2018; McKinsey Global Institute analysis

The survey included:

- Demographic questions (industry, location, ownership structure, company size)
- Questions about financial performance across various metrics (revenue, revenue growth, profit, investment)
- Questions about innovation and disruption, concerning self-assessed performance as well as practices
- Questions about management practices and strategic decision making
- A final question regarding the most significant challenges and risks to growth and profitability
- For respondents whose firms had 250 or fewer employees, a separate set of questions on their interaction with value chains

To ensure that the respondent had a comprehensive understanding of management practices and company strategy, we limited the survey respondents to the executive level (chief executive officer, president, senior director, or other C-level role or equivalent).

We identified "top-performing" companies through self-reported annual revenue change over the past three years and defined the top quartile for each country and industry. We limited the analysis to companies with 250 or more employees.

When calculating averages for indicators to compare across archetypes and industries, company responses were weighted based on contribution to global GDP of the host country. We used a weighted average to analyze survey results to better represent the global landscape.

6. 2015–30 GROWTH SCENARIOS FOR EMERGING ECONOMIES

In Chapter 4, we created scenarios for 2030 for GDP and per capita GDP for the set of 91 countries included on this report. We estimated related variables, consistent with our different growth scenarios, such as required investment and expected number of large companies.[263] For baseline projections, we consolidated growth forecasts from data sets compiled by the Economist Intelligence Unit, IHS Economics, and Oxford Economics.

For the "productivity boost" scenario, we relied on the McKinsey Global Growth Model, a proprietary supply-side econometric macroeconomic model that takes into account the dynamic interactions of multiple variables, including population, employment, capital formation, and productivity. The McKinsey Global Growth Model uses different sources to build the historical and forecast scenarios. Its main sources are the World Bank World Development Indicators, Oxford Economics, IMF World Economic Outlook, IMF International Financial Statistics, Economist Intelligence Unit, UN Population Division, World Bank Global Financial Development Database, and the McKinsey Global Institute Financial Asset database, as well as some other UN and OECD databases. For firm-level projections, we also relied on McKinsey's proprietary CompanyScope database.

GDP scenarios

GDP growth rates and GDP per capita were estimated for consensus and productivity boost scenarios, and decomposed in employment growth and productivity growth, following the same method used in previous MGI research. Employment growth refers to the annual growth rate of the total employed labor force, while labor productivity is GDP growth not explained by an increase in the labor force. For the decomposition of per capita GDP growth rates, employment per capita growth refers to the difference in annual growth rate between total population and total employment, representing the growth of the portion of the population that is employed.

For our productivity boost scenario, we assumed that non-outperformer emerging economies, as a cohort, would reach an annual productivity growth rate of 4.2 percent, matching the experience of long-term outperformers from 1980 to 2015—the period with available data for the set of countries. It was assumed that employment growth rates would be the same in the consensus scenario and the productivity boost scenario from 2015 to 2030. We are therefore not considering any efforts by these countries to increase the share of the population that is employed.

[263] For the full list of countries, see Exhibit 2 in Chapter 1.

In this scenario, annual GDP growth for non-outperformer emerging economies, as a cohort, would rise from 2.9 to 5.8 percent. We also set a target for each country in the group. Some countries were grouped due to size and similarities in past productivity performance and employment growth. Exhibit A3 shows the GDP and per capita GDP growth rates in the consensus scenario and the productivity boost scenario for each country or group in the cohort of non-outperformer economies. Our Global Growth Model also estimated a "feedback effect" of the growth of non-outperformer economies on outperformers and high-income economies.

We also used the Global Growth Model to estimate other macroeconomic variables under the baseline consensus and productivity boost scenarios, such as total exports and imports of goods and services in 2030. For the estimations of population moving out of poverty or entering the consuming class, we used the United Nations World Income Inequality Database, calibrated to the World Bank World Development Indicators measures of poverty.

Estimating the investment required for productivity growth

We also estimated the investment required for the non-outperformer emerging economies. According to our analysis, the targeted increase in productivity would require non-outperformer emerging economies, as a cohort, to commit to investing between 21 and 27 percent of GDP every year across the public and private sectors. We followed a methodology similar to that used in previous MGI research.[264]

We relied on the McKinsey Global Growth Model database for population, GDP, and capital stock, all expressed in constant 2010 dollars. Capital stock includes stock value of housing, commercial and industrial real estate, equipment and machinery, roads, railroads, ports, airports, power plants, electric grids, water-supply systems, and other infrastructure. It includes both public- and private-sector investment.

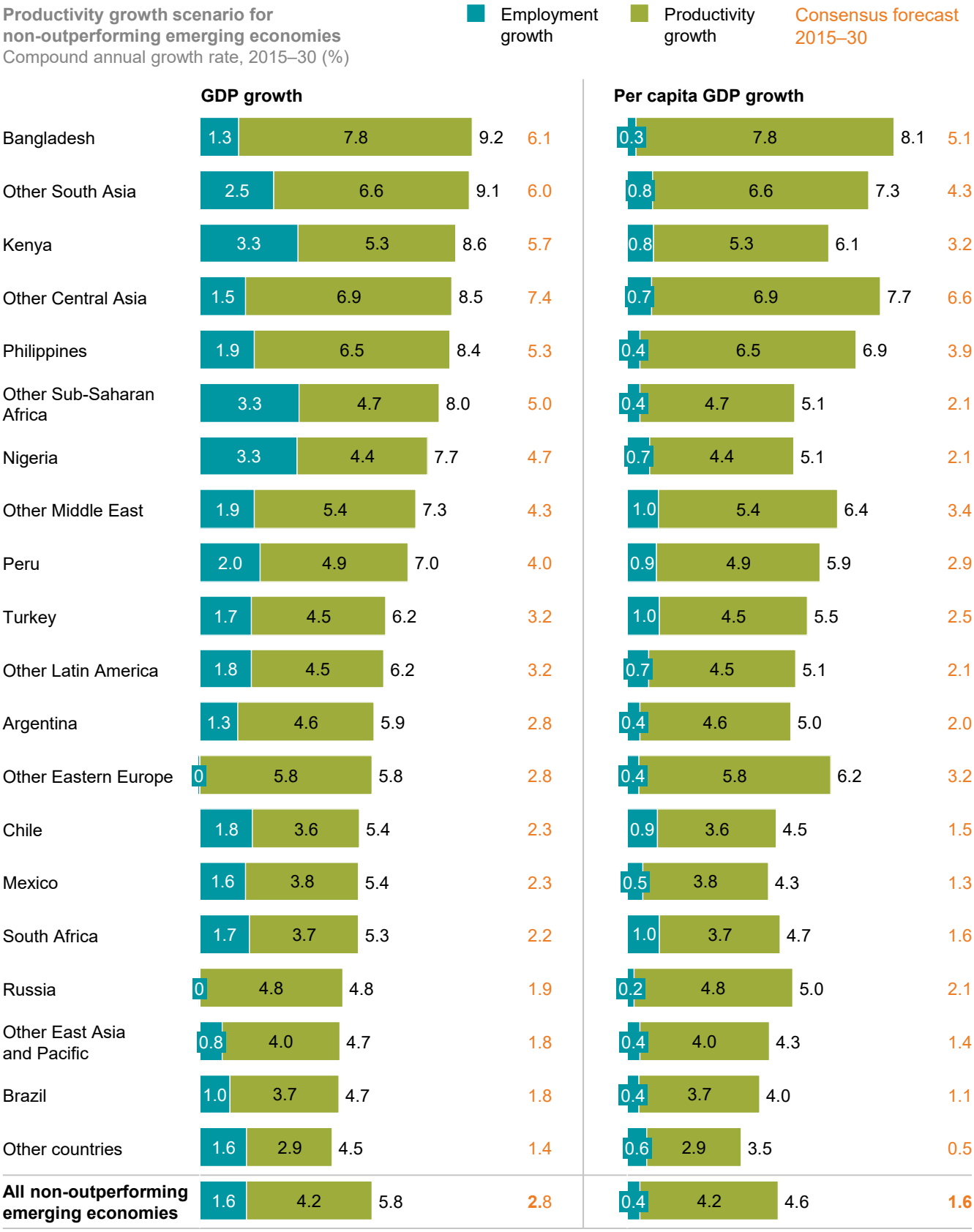
To estimate the lower range of the capital stock required in our productivity boost scenario, we used a regression to estimate a linear relationship between per capita capital stock and per capita GDP for each country in the group of non-outperformer emerging economies from 1980 to 2016. Using the potential future levels of GDP in our productivity boost scenario, population growth from our Global Growth Model, and the imputed relationship between per capita GDP and per capita capital stock for each country, we computed the capital stock requirement in 2030. Assuming a 5 percent overall depreciation rate, we then estimated the total fixed investment required to reach the target levels of GDP. To estimate the upper range of the capital stock required, we ran a similar linear regression to estimate the per capita capital stock and per capita GDP for the outperformer economies from 1980 to 2016.[265] Using the coefficients of the regression, we estimated the maximum annual capital stock requirement for non-outperformer emerging markets.

[264] See *Global growth: Can productivity save the day in an aging world?* McKinsey Global Institute, January 2015, on McKinsey.com.

[265] We excluded China from this analysis because it is an outlier, with investment equivalent to 42 percent of GDP in that period.

Exhibit A3

GDP and per capita GDP growth rates in consensus and productivity growth scenarios.


Productivity growth scenario for non-outperforming emerging economies
Compound annual growth rate, 2015–30 (%)
Employment growth
Productivity growth
Consensus forecast 2015–30
GDP growth
Per capita GDP growth
Bangladesh 1.3 7.8 9.2 6.1 0.3 7.8 8.1 5.1
Other South Asia 2.5 6.6 9.1 6.0 0.8 6.6 7.3 4.3
Kenya 3.3 5.3 8.6 5.7 0.8 5.3 6.1 3.2
Other Central Asia 1.5 6.9 8.5 7.4 0.7 6.9 7.7 6.6
Philippines 1.9 6.5 8.4 5.3 0.4 6.5 6.9 3.9
Other Sub-Saharan Africa 3.3 4.7 8.0 5.0 0.4 4.7 5.1 2.1
Nigeria 3.3 4.4 7.7 4.7 0.7 4.4 5.1 2.1
Other Middle East 1.9 5.4 7.3 4.3 1.0 5.4 6.4 3.4
Peru 2.0 4.9 7.0 4.0 0.9 4.9 5.9 2.9
Turkey 1.7 4.5 6.2 3.2 1.0 4.5 5.5 2.5
Other Latin America 1.8 4.5 6.2 3.2 0.7 4.5 5.1 2.1
Argentina 1.3 4.6 5.9 2.8 0.4 4.6 5.0 2.0
Other Eastern Europe 0 5.8 5.8 2.8 0.4 5.8 6.2 3.2
Chile 1.8 3.6 5.4 2.3 0.9 3.6 4.5 1.5
Mexico 1.6 3.8 5.4 2.3 0.5 3.8 4.3 1.3
South Africa 1.7 3.7 5.3 2.2 1.0 3.7 4.7 1.6
Russia 0 4.8 4.8 1.9 0.2 4.8 5.0 2.1
Other East Asia and Pacific 0.8 4.0 4.7 1.8 0.4 4.0 4.3 1.4
Brazil 1.0 3.7 4.7 1.8 0.4 3.7 4.0 1.1
Other countries 1.6 2.9 4.5 1.4 0.6 2.9 3.5 0.5
All non-outperforming emerging economies 1.6 4.2 5.8 2.8 0.4 4.2 4.6 1.6

NOTE: Figures may not sum to 100% because of rounding.

SOURCE: McKinsey Global Growth Model; World Bank World Development Indicators; IHS Forecast; Oxford Economics Forecast; McKinsey Global Institute analysis

Firm-level estimates

For our estimates of companies with more than $1 billion in revenues that are expected to be headquartered in emerging markets by 2030, we updated a 2013 MGI report, *Urban world: The shifting global business landscape*.[266] That report used data from 2010 for urban GDP and number of companies with over $1 billion in revenue (the McKinsey CompanyScope database). The study noted that the number of large companies in a city was highly correlated to the city's GDP, with this variable explaining almost 90 percent of variability in number of companies.[267] Based on this finding, it went on to project the number of companies expected to be in different cities by 2025.

For this report, we have more up-to-date information on country GDP, we project growth for a different period (to 2030), and we employ different economic projection scenarios ("consensus" and "productivity boost"). To update the previous analysis based on this new information, we used real GDP growth data from 2010 to 2015 and projections from both of our scenarios for 2030 to estimate future growth of countries. We mapped these new country GDP growth rates to cities by using the ratio of city growth to country growth from the previous report's analysis. The rest of the methodology was maintained to make our projections of companies with over $1 billion in revenue in the future in different cities from emerging economies.

Analysis and simulation of employment and value added in manufacturing and services

Chapter 4 shows that manufacturing industries will likely employ a smaller share of population for emerging economies when compared with the experience of early industrializers. We used data on employment and value added in manufacturing from the Groningen Growth and Development Centre.[268] The data set shows shares of employment and value added in 10 sectors from 1960 and covers 42 countries, both developed and emerging markets. This database was used in previous academic research on premature deindustrialization.[269] The GDP per capita figures used in Chapter 4 are in constant 2010 dollars, obtained from the World Bank World Development Indicators.

The method and formula specifications were the same used by Harvard University economist Dani Rodrik in his 2015 paper on premature deindustrialization.[270] To test the hypothesis that the peak of employment and value added in manufacturing has been reached at lower GDP per capita levels in recent years, we used two regressions. The independent variable is either the share of manufacturing employment as a percentage of total employment, or the share of manufacturing value added over GDP. The dependent variables for both regressions are the natural logarithm of population and GDP per capita, as well as the natural logarithm of the square of those variables, to measure non-linear effects. To measure trends over time, we also used dummy variables for each decade from 1970 to 2000.

We found that dummy variables are statistically significant for each decade in the regression of employment and statistically significant since 1980 for the regression on value added, indicating evidence that the inverted u-curves relating these variables to GDP per capita have moved over time. In Chapter 4, Exhibit 23 shows the inverted U-curves for two particular years. Because the graph shows only two dimensions, we took the median

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[266] *Urban world: The shifting global business landscape,* McKinsey Global Institute, October 2013, on McKinsey.com.

[267] A regression between these two variables had an r_2 value of 86 percent.

[268] Data were built using Marcel P. Timmer, Gaaitzen de Vries, and Klaas de Vries, "Patterns of structural change in developing countries," in *Routledge Handbook of Industry and Development*, John Weiss and Michael Tribe, eds., Abingdon, UK: Routledge, 2016.

[269] Dani Rodrik, "Premature deindustrialization," *Journal of Economic Growth,* March 2016, Volume 21, Issue 1, pp.1–33.

[270] Ibid.

population of our set of countries in 1995 and 2015 to plot the relationship between employment or value added and GDP per capita. Our estimates of the GDP per capita levels at which employment or value added peaked are similar to the conclusions reached in previous academic work.[271]

We also estimated the potential change in employment and value added in manufacturing from 2015 to 2030 for different countries in our productivity boost scenario. For each country, we took the GDP per capita and population in 2015 and 2030 from our McKinsey Global Growth Model, under the productivity boost scenario. With those two variables, we used the coefficients in our regression to estimate predicted employment in manufacturing in both 2015 and 2030. Finally, we estimated the difference between those two years. A similar process was used for our projections of growth in value added of manufacturing as a share of GDP.

Our model shows the evolution in employment and value added in manufacturing given the projected changes in per capita GDP and population for each country. We validated these results by comparing them with results from our Global Growth Model. As described in Chapter 3, we expect that the additional exports of manufactured goods from emerging markets will be absorbed by other emerging markets.

[271] Ibid.

Loading soyboeans onto a ship in Brazil.
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